

# ELECTRONIC FILING

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RESEARCH & DESIGN TEAM  
REPORT TO THE  
MISSOURI COURT AUTOMATION COMMITTEE

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## EXECUTIVE SUMMARY

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In November, 1997, the Missouri Court Automation Committee called for the formation of a Research & Design Team (Team) to research and report on the feasibility of developing an electronic filing system for eventual implementation in every Missouri state court. Team members are Nimrod Chapel, Supreme Court of Missouri, Robin Gibson, Office of the State Court Administrator, Elizabeth Ketcher, Legal Counsel, and Robert Bradley, EC/2004 Project Consultant. This report discusses the benefits and characteristics of an electronic filing system, analyzes the technical, legal and fiscal issues for development and implementation and recommends a development solution.

In 1993, the Missouri state judiciary, through the EC/2004 Project, announced its vision to enhance the delivery of justice services by constructing an integrated network of state courts. The EC/2004 vision is founded on the notion of public service; it is an idea that embodies three essential components: service, justice and access. Because the court filing process embodies the relationship between the judiciary and the public it serves, automation of that process promises to provide direct benefits from the EC/2004 project to a new constituency -- all court users. Developments in web-based technologies and the Missouri judiciary's unparalleled construction of a statewide infrastructure bring this potential to the realm of reality. At the same time, the transition from a paper-based filing system to an electronic environment demands forward-thinking and long-range planning. Electronic filing is one of the most "expected" facilities to come from the EC/2004 Project, the other is case management. As the EC/2004 Project approaches the midpoint of its 10-year span, it is becoming vital that electronic filing be added to the implementation schedule as soon as possible. The time is now for the Missouri judiciary to build upon existing technologies within its architecture of courts to reap the benefits of an electronic filing system. Failing to begin addressing the issues surrounding electronic filing and the concomitant technologies may lead the Project to a point where it is impossible to implement electronic filing as robustly as desired due to barriers resulting from decisions and directions which the Project adopts in other areas.

An electronic filing system, when integrated with document management and case management systems, can achieve the following:

- ✓ Permits remote filings of court documents and remote access to public court information.
- ✓ Facilitates electronic and automated docketing, scheduling, noticing and acknowledgment of case filings.
- ✓ Provides more efficient storage and retrieval of court documents and archival capabilities.
- ✓ Enhances accuracy and efficiency in management of court records by reducing physical handling, maintenance and copying of case file documents.
- ✓ Reduces the physical handling of documents required to make case filings.

As a secondary benefit, the implementation of an integrated electronic filing system, and the infrastructure components required, will make available the following functionalities:

- ✓ Promotes public access to court information by providing docket entries and links to public court records.
- ✓ Provide judges, court personnel and the public round-the-clock access to case file information

Based on extensive research of other electronic filing projects and analysis of technical and legal issues, the Team concludes that no technical, legal or fiscal barriers exist to impede the development of an electronic filing system for eventual implementation in all Missouri state courts. The Team, therefore,

recommends that the tasks enumerated in this study proceed for the development of an electronic filing system based on the following functionalities:

- ✓ Permits electronic filing of court documents and facilitates electronic access to public court information by all court users, including *pro se* parties, regardless of their level of technical sophistication.
- ✓ Permits multi-mode filings, including traditional paper, facsimile-initiated, electronic forms and electronic transmissions over the Internet, for all case types and documents filed in Missouri state courts.
- ✓ Promotes the EC/2004 vision of enhanced public access by imposing the least fiscal and administrative burdens on users while maintaining a level of security as great or greater than exists in a paper-based system.
- ✓ Utilizes a central document repository and, when fully implemented, provides the capability for data interchange with a case management system.
- ✓ Utilizes electronic signature technology to authenticate electronic case filings and a password system to ensure filings in the central repository are made by parties of record.
- ✓ Integrates with a document management system that archives and retains active and nonactive electronic case records for storage and retrieval of electronic case filings, subject to a retention and destruction schedule.
- ✓ Maintains the integrity of the public record and the nondisclosure of confidential court records.
- ✓ Provides prompt and accurate acknowledgment of electronic filings to filers and parties of record.

The legal and technical components considered for this paper encompass a broad range and represent those necessary to develop an integrated electronic filing system that provides the greatest ease of use, least financial and support burden, and highest level of integration into the case management system. Other courts' attempts to implement electronic filing have had limited success, and evaluating the broadest range of technologies is anticipated to yield a viable solution in Missouri. The idea of providing multi-modal filing processes is a major characteristic of this project as compared to other state ventures, and the Team believes that is a key factor in electronic filing success.

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## INTRODUCTION

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In November, 1997, the Missouri Court Automation Committee called for the formation of a Research & Design Team (Team) to research and report on the feasibility of developing an electronic filing system for eventual implementation in the entire Missouri state court system. The team was comprised of representatives from the Supreme Court of Missouri, the Office of the State Court Administrator (OSCA), the attorney community, and the EC/2004 Project Consultant. These members are Nimrod Chapel, Robin Gibson, Elizabeth Ketcher, and Dr. Robert Bradley, respectively. This report discusses the benefits and characteristics of electronic filing systems and analyzes technical, legal and fiscal issues surrounding development and implementation. The report derives its recommendations based on extensive background research of other electronic filing projects, review of proposed and enacted electronic and digital signature legislation, the present statutory and rule environment of Missouri, and analysis of technical and legal alternatives. After analyzing these, the Team concludes that no technical or legal barriers exist to impede the development of a prototypical electronic filing system for pilot testing and eventual implementation in all Missouri state courts.

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### **I. DEFINITION OF ELECTRONIC FILING**

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For the purposes of this study, and based on the Team's interpretation of the EC/2004 Vision, electronic filing includes: 1) transmission of a case document from a filing party, 2) receipt and acknowledgment of the filing by the court, 3) integration with a document and case management system, and 4) public access to a register of actions. Although the Team recognizes that service-of-process may be implicated with particular electronic filings, the Team does not include service of process within its definition based on its belief that the service activity is either encompassed within a case management system or is a separate project. The definition of electronic filing does not include electronic transmission of court information and court documents to state agencies and other entities that must receive such information by virtue of state law.

In its purest form, electronic filing encompasses the dialog between a party communicating with the judiciary in a written format and the court's formal written response. In a larger context, electronic filing, when integrated with document management and case management systems, offers the potential for remote public access to the court clerk's office, while enhancing recordkeeping and facilitating case management systems. An electronic filing system can create a virtually seamless web of integrated systems and applications that facilitate access to public case information, document storage and retrieval capability, and the ability to share that information among members of the legal community, the judiciary, state agencies and others who interact with the Missouri state court system, regardless of their technical capabilities and frequency of interaction .

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### **II. WHY ELECTRONIC FILING?**

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In 1993, the Missouri state judiciary, through the EC/2004 Project, announced its vision to enhance the delivery of justice services by constructing an integrated network of state courts. The EC/2004 vision is founded on the notion of public service; it is an idea that embodies three essential components: service, justice and access. Because the court filing process embodies the relationship between the judiciary and the public it serves, automation of that process promises to direct benefits from the EC/2004 project to a new constituency — all court users. Developments in web-based

technologies and the Missouri judiciary's unparalleled construction of a statewide infrastructure bring this potential to the courthouse. At the same time, the transition from a paper-based filing system to an electronic environment demands forward-thinking and long-range planning. The Missouri judiciary has the opportunity to build upon existing technologies within its open architecture to extend the benefits of an electronic filing system.

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### **III. CHARACTERISTICS OF AN ELECTRONIC FILING SYSTEM**

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- Facilitates the creation and use of electronic information by all litigants, including *pro se* parties, and court personnel.
  - Accommodates the concurrent use of multiple filing methods including: paper, e-mail, fax-initiated electronic transmission, and electronic transmission over the Internet via Web browser.
  - Provides easier, more immediate, simultaneous, and less costly access to case information at the courthouse and remote locations.
  - Accommodates all case types and court documents.
  - Allows different technical components to communicate in an open architecture of electronic transactions.
  - Preserves and enhances the integrity of the public record and the confidentiality of sensitive or privileged materials.
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### **IV. BENEFITS OF ELECTRONIC FILING**

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The primary benefits of electronic filing include those listed below:

- Provides electronic filing capability for all court users, regardless of geography or level of technical sophistication.
- Enhances proper maintenance of case files by reducing physical handling, maintenance and copying of case file documents by court users and court personnel.
- Enhances accuracy and efficiency in management of court records.
- Permits more effective utilization of court staff, space and other resources.
- Facilitates electronic and automated docketing, scheduling, noticing, and acknowledgment of case filings when integrated with a case management system.
- Promotes document storage and retrieval capabilities and archives for active and inactive case files when integrated with a document management system.

In addition to the primary benefits, the implementation of infrastructure components to fully integrate electronic filing offer secondary benefits as well:

- Provides access to a register of actions by making docket entries and links to public court documents available via the World Wide Web and Internet.
- Provide judges, court personnel, and court users round-the-clock access to public case file information.

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## V. ISSUES

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### TECHNICAL CONSIDERATIONS

*The technologies considered below encompass a broad range and represent those necessary to develop an integrated electronic filing system that provides the greatest ease of use, least financial and support burden, and highest level of integration into the case management system. Other attempts to implement electronic filing have had limited success, and evaluating the broadest range of technologies is anticipated to yield a viable solution in Missouri. The idea of providing multi-modal filing processes is a major characteristic of this project as compared to other state ventures.*

#### DOCUMENT FORMAT:

The format in which documents and attachments are transmitted to the court affect a court's capability to process documents quickly following receipt, the ability of remote users to access documents quickly, conveniently and at the least cost. A well designed document format can influence court users' willingness to use an electronic filing system.

#### CERTIFICATION/AUTHENTICATION/SECURITY:

It is necessary to provide at least the level of security and authentication that is provided in the traditional paper filing systems. There are several technologies which should be considered. These include public/private key encryption, secure server connections, firewalls, and password access.

#### COLLECTION OF FILING FEES:

If case filing fees are required at the time of case initiation, and that initiation is accomplished using electronic filing, then it is necessary to define the method and develop the facility in which these fees can be paid electronically.

#### SELECTION, IMPLEMENTATION AND INTEGRATION OF A DOCUMENT MANAGEMENT INFRASTRUCTURE WITH THE CASE MANAGEMENT SYSTEM:

A document management infrastructure will be essential to a fully developed electronic filing system. Document management will provide the necessary engine to manage the documents and information received from non-court users and which needs to be communicated to the case management

system(CMS). The implementation of document management will support the requirements of access using the World Wide Web while protecting the court's case management system security. The specific selection of a document management engine will not be addressed in this paper, but it is vital to the complete development of a fully integrated electronic filing system. Once selected, the document management system must be implemented as part of the infrastructure and integrated with the CMS. This integration will include communication between the two systems so that information in the CMS can be made available in the document management system for Web access, and the documents and information received by the document management system can be structured for incorporation into the CMS. The development of the communication and integration of the document management system with the CMS will not be addressed here, but will need to be developed and implemented before a fully integrated electronic filing system can be accomplished.

#### PUBLIC ACCESS TO CENTRAL "REGISTER OF ACTIONS":

Once a filing has been made, users will want to see the status of the case or that the initiation of the case has been completed. A public Register of Actions, essentially an electronic docket and case schedule, generated by the case management system and made available for access through the Web offers this functionality.

#### NOTIFICATION OF PARTIES:

In virtually all instances the filing of a document in a case will necessitate the notification of parties. The technology implemented for accepting electronic filing will also provide a piece of the required technology for notifying parties.

### LEGAL CONSIDERATIONS

#### DOCUMENT FORMAT:

Format requirements affect court users' technical capability to use an electronic filing system and their willingness to make the transition from a paper-based system to an electronic environment.

**Relevant Questions:** What standards or filing format should courts require for electronic filings? Are electronic filings "writings" with the same force and effect as "written" documents? Will electronic filings satisfy state laws and court rules that refer to and, in some instances, require "writings," "written motions," "written records," "papers," "signature," "verified petition?"

#### VERIFICATION/SIGNATURE REQUIREMENTS:

Signature requirements can protect the integrity of court documents. Sophisticated signature technologies, however, can impede access by imposing additional authentication requirements that presently do not exist in a paper-based system.

**Relevant Questions:** What signature requirements should courts impose to ensure the a) identity of the person affixing his or her name; and that b) the electronic document is not tampered with after filing. Digital signature technology guarantees that an electronic document is transmitted verbatim from a specified, identified individual. State and federal courts, state legislatures and Congress, however, have required different levels of security and technical sophistication in electronic filings.

#### TIMELINESS OF FILINGS:

Electronic transmission allows access to court filing systems at times outside of normal business hours. An electronic filing system can promote access by allowing filings at any time of day, regardless of whether the clerk's office is "open" for business.

**Relevant Questions:** When will the court deem an electronic pleading filed? At the time of transmission? At the time the court clerk prints document or otherwise acknowledges receipt of the electronic transmission? At the time the court computer receives the electronic transmission? Who will bear the legal burden to prove transmission of an electronic filing?

#### ACCEPTANCE OF PLEADINGS:

Acceptance of an electronic filing by a central registry may be conditioned on the pleadings' conformance to certain technical standards.

**Relevant Questions:** What legal requirements control acceptance of electronic filings by the court? Should a court computer reject electronic filings based on improper filing format? Should a judge be able to accept electronic filings from a remote location (perhaps a personal computer) and direct them to the central registry?

#### ACKNOWLEDGMENT OF PLEADINGS BY COURT:

The success of an electronic filing system depends, in large part, on users' confidence in the system and their willingness to electronically file court documents.

**Relevant Questions:** Should the court acknowledge receipt of electronic filings? What form of acknowledgment is necessary? When and to whom should the acknowledgment be sent?

#### STORAGE/RETRIEVAL OF PUBLIC COURT RECORDS:

The enhancement of document storage, retrieval and archive capabilities in an electronic environment has led some experts to recommend that all court documents, regardless of content or activity level be saved for an indefinite period of time.

**Relevant Questions:** Should electronic case files be subject to a retention and destruction schedule? If so, should that schedule differ from paper-based retention and destruction schedules?

#### PUBLIC ACCESS TO JUDICIAL DATABASES:

**Relevant Questions:** Should the public have unlimited, cost-free access to public documents stored in judicial databases? Does electronic access to court information implicate questions of privacy? Should/can the judiciary prohibit public access to certain types of case information and case statistics that are not subject to confidentiality agreements or otherwise private?

#### LEGAL CULTURE:

The success of electronic filing will depend on user acceptance.

**Relevant Questions:** Are lawyers and members of the legal community technically capable and willing to use an electronic filing system?

## RULEMAKING PROCESS:

Formality in the judicial rulemaking process, with requests for proposals and notice and comment periods, does not always provide the flexibility and adaptability to accommodate users' needs and technological change.

**Relevant Questions:** What is the most efficient method to amend, adopt or clarify Supreme Court rules to permit electronic filing? Should the Court adopt general rules of civil and criminal procedure or provide specific requirements in administrative rules?

## FISCAL CONSIDERATIONS

### FEES ASSESSMENT

**Relevant Questions:** Should the Court assess an additional fee on electronic filings? Should the Court adopt a fee schedule based on the filing method to defray the administrative costs associated with each filing method?

### DISTRIBUTION OF COSTS FOR DEVELOPMENT AND MAINTENANCE:

**Relevant Questions:** Are costs inherent in the EC/2004 Project, or should the development and maintenance costs be passed on to users? If so, how?

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## VI. TECHNICAL AND LEGAL ALTERNATIVES

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### TECHNICAL ALTERNATIVES

*Many of the technical solutions listed below have been included in other electronic filing projects as enumerated in Section VII, below. In evaluating the various technologies available it is necessary to consider both the maturity of the technology (standardization, general acceptance, prevalence of usage) and the cost/benefit ratio (how much benefit is derived based on the labor, fiscal, staff, and integration resources necessary to implement).*

### FORMAT

#### **Imaging**

**How it works:** The sender of a word processing document to be filed with the court takes a "picture" of each document with the use of scanning equipment. The activity is similar to making an electronic photocopy: documents are captured as images which, instead of being printed, are stored as electronic graphics files. Using imaging would require the submitter to have access to the imaging equipment and then to send the electronic graphics files, in an acceptable format, to the court as part of an electronic message.

**Advantages:** If properly scanned, documents retain original formatting, are as reliably accurate as photocopies, and are easy to read. These images are displayable or printable in their original format. [exhibits can be included in the attachments]

**Disadvantages:** Depending upon the scanning application and the storage file type, large graphic files (from .5 Mb to 2Mb) are created and transmitted. These large files can greatly increase transmission time and lead to difficulty in attaching and detaching files transmitted over the Internet. The technology requires highly-trained personnel and a substantial investment for hardware and imaging software. Full-text searches are problematic with imaged information because the document files are stored as bit-maps rather than characters.

## Text Files

**How it works:** Documents are created on a computer and saved in an approved format. These saved files are then transmitted to the court as an attachment to an electronic message in the format of the word processor in which they are created.

**Advantages:** Text files are among the smallest file types and would facilitate transmission, with less likelihood of communication problems over the World Wide Web. Transmission of text files imposes the least fiscal and administrative burden *if* the filer currently is capable of creating the appropriate file format.

**Disadvantages:** It appears that a key consideration on both the court and attorney sides of the electronic filing question is a desire to see all documents in an identical representation of the way they appeared when the creator generated them. Simply, everybody wants "What You See Is What You Get", commonly referred to as WYSIWYG. In order to get WYSIWYG output from any word processing application several things must occur. First, the recipient of the file must use an application capable of reading the file as a native file format (no loss of formatting due to translation). Second, since word processors "remember" what printer is attached to the system, they also impose the formatting restrictions and conventions of that printer on the document when it is displayed on the screen. Many of us have seen the "reformatting to printer <name>" messages when opening a WordPerfect file given to us by someone else. Therefore, in order to preserve WYSIWYG, the court, or other recipient must have *exactly* the same printer and print drivers as the creator of the document. Accommodating these two requirements is difficult—applications are continually improved and upgraded by manufacturers and printers are frequently changed or replaced—and will be very expensive and complicated for the courts. If a specific set of parameters (limited word processor applications/versions and printers) are accepted, this will certainly put a burden on both the courts and the attorneys financially and operationally to keep in synch. Text files from multiple versions of proprietary word processing programs are not easily susceptible to integration with a document or case management system. Web access to text files is problematic, in that users must have special software viewers to view documents.

## Standardized Generalized Markup Language (SGML)

**How it works:** Elements of style and formatting in a word processing document are coded using SGML markup tags. For example, the title, "Motion for Summary Judgment" would be manually tagged thus:

```
<title>Motion for Summary Judgment</title>
```

Once the tagging is completed the file is saved and transmitted as an attachment to an electronic message.

**Advantages:** Anyone who has a word processor or has text file creation ability can create SGML coded documents with only the additional expenditure of a code manual and labor. Many word processing applications available today incorporate or offer as add-ons SGML conversion. This permits both filers and recipients to enjoy WHYSIWYG reliability, but SGML may not support exactly the formatting desired by the creator of the document thus potentially imposing an artificial structure on the document.

The use of SFML permits a higher level of integration with document management and case management systems because elements of the document are tagged. The development of the interface between the electronic filing system and the case management system could be reduced because the SGML tags would identify data elements which would facilitate data extraction into the case management system.

**Disadvantages:** Filers are required to learn SGML coding language and to markup documents before transmission. Requiring SGML coding can preclude access by *pro se* and infrequent filers. SGML coding may not support exactly the formatting desired by the creator of the document thus potentially imposing an undesired, artificial structure on the document

### **Portable Document Format (PDF)**

**How it works:** Portable Document Format allows documents created on one platform to be displayed and printed exactly the same on another. Documents are created in a word processing application and then "printed" into PDF format files. These files contain all the information about the appearance of the document.

**Advantages:** PDF files are a type of graphic image file, in that they contain a raster or bit-mapped image representation of the document as it would have been printed by the originator's computer. This supports the desirable WYSIWYG functionality. In addition, PDF files can contain information which supports full-text searching of the document, even though an optical character recognition (OCR) process has not been performed. Because PDF viewers are free and available to a wide variety of platforms Web access to filed documents is supported, as well as court access. In addition, the original content of the file can be verified to determine that no accidental or intentional changes have occurred since the file was created by the originator. The use of PDF eliminates the concerns present when end users are permitted to create documents in any word processing application on any platform. Being able to permit such a creation environment would significantly reduce the burden on both end users and the court in terms of synchronizing the applications, versions, and printers with one another and the industry. PDF conversion can occur on the receipt end of a fax transmission, with the conversion be initiated by the document management engine. This would permit the courts and users with Web access to view the files universally. Conversion to PDF on the receiving end would enable fax to be used as a transmission method without stopping the automated process at the completion of the fax transmission.

**Disadvantages:** If documents are converted to PDF files at the origination end of an electronic filing, the end user must have the Acrobat software to create the PDF file. This is a reasonably priced application, and requires a minimum of training. It is, however, an additional investment on the end users' part, and may not be available to all users.

### **Electronic Data Interchange (EDI)**

**How it works:** All parties agree to a highly structured, standardized set of data elements which are transmitted in specific sequence and size from one computer system to another. The JEDDI Project (Judicial Electronic Document and Data Interchange) under development and sponsored by the National Center for State Courts is one such project. It specifically is addressing creating an EDI standard for courts to use in providing case information to credit reporting bureaus.

**Advantages:** EDI's highly structured data format makes integration of the data with other applications more easy. It provides an environment in which data exchanges are highly accurate and reliable.

**Disadvantages:** EDI's very nature makes it undesirable for electronic filing. The reduction of case filings to an extremely rigid set of fields of data precludes the variability and document attachment capability necessary in case filings.

### **Facsimile (fax)**

**How it works:** Facsimile format is generally created in a manner very similar to image files. A document is inserted into a device which scans it and then creates a digital image file which, in the case of fax is not "saved" anywhere, but exists only as long as it takes the fax machine to transmit it to another fax machine across a telephone line. Because there are a great many fax machines in use and a great many manufacturers, standards have been adopted for the file which is created and transmitted. The most common standards are CCITT Group III and CCITT Group IV.

**Advantages:** Fax machines are widely available and low cost. Their use does not require significant training. Fax standards provide reasonable confidence that both parties can send/receive without difficulty. Fax technology can be easily integrated into computing systems using fax servers. These servers capture the fax transmission and can either print on paper, route it to court staff using electronic mail, or deliver it to the document management engine for processing. Fax standard files delivered to the document management engine can be converted to a portable document format permitting use and viewing in the court and on the Web using a free PDF viewer. Pro se litigants and attorneys who do not possess or have access to fax machines could make use of public (pay) fax machines or a court sponsored public access terminal. Because fax initiated filings will permit filers to capture and include documents other than the basic filing forms, it also enables them to include exhibits such as contracts and other paper documents which might not otherwise be available electronically.

**Disadvantages:** Fax filing, if used without integration into a document management application, merely delivers the document to the "courthouse door". Human intervention is required to remove the fax from the machine or electronic mailbox and then to initiate or amend the case in the traditional method. Storage of Fax files in their native TIFF format requires that court and Web users have an application capable of viewing TIFF files.

### **World Wide Web Forms**

**How it works:** The owner/developer of a Web site (in this case the court system) creates a "form" which is displayed on the user's screen. This form contains boxes or fields into which the user places information (keyboard generated text, file attachments, etc.). Once the user has filled in the fields, he/she clicks on a button generally labeled "submit". This button initiates the transfer of the information in the fields to the receiving server/site. The transmission contains a string of delimited data which is sent to the server along with a command script telling the server what actions to take with the data. Generally this would be to take the delimited data string, separate it into its component data segments (the original fields) and place them into a database on the server.

**Advantages:** Because the fields contain only text or file attachments, both parties see and receive the information in a format which does not vary with the computer platform or application used. Use of Web browsers is becoming very widespread, they have low initial cost, and minimal training required. This causes a minimal burden on the end users. On the court's side the Web technology deposits information into a document management database which then communicates with the case management system (CMS) to input information which is already reduced to the content required for CMS data handling.

**Disadvantages:** Pro se litigants and some attorneys may not have the capability or resources to use Web technology. In order to make electronic filing available to these parties, it would be necessary to make public access terminals available or integrate another technology to support these users.

## CERTIFICATION/AUTHENTICATION/SECURITY:

### Digital Signatures and Public/Private Key Encryption

**How it works:** Digital signatures use public key cryptography to create a digital signature and transform data into seemingly unintelligible form. In public key encryption, the signer of a document holds a private key, which is used to create a digital signature. The signer also holds a public key that is widely known. The party receiving the digitally signed message uses the public key to verify the digital signature. A “hash function” is used to create and verify the digital signature. The hash function creates a digital representation in the form of a “hash value”, which is usually smaller than the message, but is unique to it. A trusted third party must issue private keys and states have adopted complex licensing schemes for certification authorities that issue and attest to the validity of private keys.

**Advantages:** Unless the holder of a private key discloses his or her key to another party, it is technically improbable for a private key/public key combination to be manipulated. Digital signature technology, therefore, ensures that the person who signs the message is the person who purports to have transmitted the message. Digital signature technology also ensures the integrity of electronic documents by securing the original message content after the sender digitally signs the message.

**Disadvantages:** The technology requires a complex statutory scheme for licensing of third party authentication authorities. From a practical standpoint, it would preclude any other person, other than the person who drafted a document from electronically filing the document. For example, an attorney would need to divulge his private key to a secretary to give her the authority to electronically file court documents. Key maintenance also poses significant administrative difficulties. This would be prohibitive on two levels: it would require an additional lead-time before filing, and it would require users to have a much higher technical skill level than is common.

### Electronic Signatures

**How it works:** A representation of the filer’s physical pen and ink signature is placed into the document, usually by inserting a bit-map image into the document.

**Advantages:** Inclusion of a physical representation of a signature brings a high comfort level to many judges and attorneys. The technology for capturing a bit-map of a person’s signature is widely available using scanning equipment or purchasing a file from vendors. Once the signature is affixed, the attorney’s staff could complete the filing by submitting the documents.

**Disadvantages:** Unlike digital signature technology, an electronic signature does not rely on cryptography to encode messages or “seal” a document after it is signed; therefore, electronic signature technology does not provide additional levels of security. For some low-tech users, any burden for obtaining a bit-map of their signature will be excessive. It will be necessary for the owner of a signature to protect it to prevent inappropriate use of it.

### Secure Server Connections (using SSL)

**How it works:** Secure server connections using Secure Sockets Layer (SSL) provides data encryption, server authentication, message integrity, and optional client authentication for a TCP/IP (Internet) connection. SSL is an open, nonproprietary protocol. The authentication uses public key cryptography making it possible for one entity to be sure that another entity is who it claims to be. It uses functions of public key encryption (as described above in digital signatures) to construct a message digest, which is derived from a random message sent from the other party, and sends it back to the other party. Because the message digest is random, it is very difficult (realistically

impossible) to decrypt the party's key based on the message digest unless you are the authenticated receiver of the message.

**Advantages:** Secure server connections can be achieved using the current versions of browser software commercially available. There is no additional expense to use secure connections, but attorney firms which have their own Internet server will need to "turn on" secure communications capabilities on their server.

**Disadvantages:** If filing is limited to Web connectivity and requires SSL connection, then all users including *pro se* litigants will be required to use the Internet. This may be an unreasonable burden on many users.

### **Password Access**

**How it works:** Parties that file court documents are issued a password by the court computer or a third party authorized to do so (as with private/public key encryption) for future filings to the electronic case file located in the central registry.

**Advantages:** Increases the level of security

**Disadvantages:** Passwords must be issued and maintained by a third party. The technology must also be able to track lost and stolen passwords. It would require an additional lead-time before filing.

### **Firewalls:**

**How it works:** Hardware and software which limits the exposure of a computer network to an attack from an external location. Routers and other internetworking devices use their access control capabilities to build firewalls. This is also accomplished by using physically separate computers which communicate via very specific channels.

**Advantages:** A firewall can segregate the critical functions of the case management system from the public access information thereby providing needed security to judicial information system. Using a firewall can permit the judicial information system to offer a greater range of information by duplicating or replicating it from the internal information systems to the public systems. The functions which enable the firewall include physically separate computers which prevents a failure on one side of the firewall from causing a failure on the entire system.

**Disadvantages:** For the firewall to work effectively, all public access must be limited to databases and Web sites outside the firewall. In order for information to be available, it must be duplicated or replicated from the internal, protected systems, out to the public systems. This requires some additional computational and staff expenditures.

### COLLECTION OF FILING FEES:

#### **Credit Card**

**How it works:** The court establishes accounts with banking and credit card companies to accept payment by credit card. Credit card information can be retained on file in the court or supplied with each filing. Charges are made to the specified account and the court is paid regularly by the credit card issuer.

**Advantages:** This method permits filings to proceed without waiting for payment. No minimum balance accounts are necessary, and no additional monitoring is necessary for either party.

**Disadvantages:** Procedures must be established to address declined charges. Courts may need to reconcile monthly credit company payments with the payment record on cases. Security of transmission of credit card information must be considered, and if such information is retained by

the court, additional security measures for the repository may be necessary. Not all litigants will choose or be able to use credit cards for payments.

### **Debit Account**

**How it works:** Litigants establish an account with the court into which the deposit a specified amount of money. Court costs are debited from this account.

**Advantages:** Allows prompt payment of court filing fees. Eliminates the need to transmit fees at the same time as the documents. Eliminates the need to delay filing due to pending arrival of cash payments.

**Disadvantages:** Accounts must be monitored by both the courts and litigants. Minimum balances must be maintained. Procedures must be established to address insufficient balances.

### **Cash/Check Payment**

**How it works:** Users present cash or checks to the court clerk either in person or by postal mail to satisfy filing fee requirements.

**Advantages:** Users are able to make payments in the traditional manner.

**Disadvantages:** Because electronic filing would separate the payment pathway from the filing path, it may be necessary to postpone 'completion' of the initiation until the fee is received.

## PUBLIC ACCESS TO CENTRAL "REGISTER OF ACTIONS"

### **Voice Interactive**

**How it works:** The "register of actions" is essentially a report of all case activity. It is the "docket sheet" kept in the electronic file, just as if it were in the paper file in a courthouse. The register is a repository of information made available to non-court users. The entries are created by the interaction of the case management system and the document management system. Users connect to the register using a telephone. Armed with minimal case information such as case number or party name, the user uses the touch-tone pad of the telephone to transmit this information to the computer. The computer looks up the requested information and, using a voice synthesizer, "speaks" the information to the caller over the phone.

**Advantages:** The end user requires only minimal information, no significant resource expenditure (could even use public telephone), and no training. Most of the case information would be transmittable in this fashion.

**Disadvantages:** Users would only be able to access data on the case. Information contained in documents would be unavailable to them without another means of access (Web or in person). Additional hardware and phone lines would need to be added to the computing resources in place.

### **Web Access**

**How it works:** Users connect to the register of actions through their Web browser. Once connected to the courts' site, users then click on a hyperlink which causes the register to be displayed.

**Advantages:** Web browser access offers the capability to search the register for specific names, dates or other data. In addition to the facts of the case, the Web accessible register will offer the users access to view documents filed in the case.

**Disadvantages:** This functionality could not be made available until the document management system is in place or until the CMS integrates it.

## **Dial-In Access**

**How it works:** Dial-in access permits users to access the computer systems at the court directly using a modem connection. They are able to view the docket information on cases. This information is usually a specialized report generated by the CMS.

**Advantages:** This method generates the perception that users are connected more directly to the court.

**Disadvantages:** This type of access requires a greater level of support than Web access in that an additional access mechanism is required. Additional modem connections must be made available and the court must monitor these frequently to determine that they are operating properly and there are sufficient resources available for connection.

## NOTIFICATION OF PARTIES:

### **Mail (U.S. Postal Service)**

**How it works:** Notification documents are sent to the party by printing the document and inserting it into an addressed paper envelope. This packet is delivered to the post office which assumes responsibility for ensuring its proper delivery.

**Advantages:** Postal addresses are already collected as part of case information, so no additional information is necessary. The courts are already set up to handle postal notifications.

**Disadvantages:** When electronic filing has been used, transmittal of notifications via postal mail will undermine the processing speed gained.

### **Electronic Mail**

**How it works:** Notification documents are sent to the party by electronic mail using a party-provided email address. These documents are generally standard in formatting and can be computer generated from the CMS using the document management engine.

**Advantages:** Notices return directly to sender's electronic mailbox providing rapid notification.

**Disadvantages:** System failures on either end can delay notification. Using the Internet opens the users to delays/bottlenecks uncontrollable by the court.

### **Fax**

**How it works:** Documents are sent to the court from the filer's location using a facsimile machine or fax modem. In the case of the fax machine, the printed pages of the document are inserted into the fax machine which optically images and after converting the image into a standardized format, transmits them to the receiving fax device. In the case of a fax modem, a document is "printed" from the word processing or other application, through the fax modem to the receiving fax device. The print driver residing on the computer converts the document file into the appropriate image file and format for fax transmission.

**Advantages:** Fax machines are widely available in today's offices. Their use would impose little or no burden on filers.

**Disadvantages:** If the receiver's fax machine is out of expendables (paper, toner) this can delay notification. Incorrect phone numbers or equipment failure can also delay notification.

TABLE 4.1

<b>TECHNICAL ALTERNATIVES SUMMARY RECOMMENDATIONS TABLE</b>	
FORMAT	RECOMMENDED (✓)
<b>Imaging</b>	
<b>Text Files</b>	
<b>Standardized Generalized Markup Language (SGML)</b>	
<b>Portable Document Format (PDF)</b>	✓
<b>Electronic Data Interchange (EDI)</b>	
<b>Faxsimile (fax)</b>	✓
<b>World Wide Web Forms</b>	✓
CERTIFICATION/AUTHENTICATION/SECURITY	
<b>Digital Signatures and Public/Private Key Encryption</b>	✓
<b>Electronic Signatures</b>	✓
<b>Secure Server Connections</b>	✓
<b>Password Access</b>	✓
<b>Firewalls</b>	✓
COLLECTION OF FILING FEES	
<b>Credit Card</b>	
<b>Debit Account</b>	
<b>Cash/Check Payment</b>	
PUBLIC ACCESS TO CENTRAL "REGISTER OF ACTIONS"	
<b>Voice Interactive</b>	✓
<b>Web Access</b>	✓
<b>Dial-In Access</b>	
NOTIFICATION OF PARTIES	
<b>Mail (U.S. Postal Service)</b>	✓
<b>Electronic Mail</b>	✓
<b>Fax</b>	✓

## **LEGAL ALTERNATIVES**

### **STATE LEGISLATIVE SOLUTIONS**

As further described in Section VII, *below*, legislators in other states have developed three primary statutory models for electronic filing of court documents. Most legislation focuses on authentication requirements by electronic or digital signature (See Section IV, *above*).

Court documents are generally subject to the following legislative treatment:

- 1) Statute applies to acceptance of all public and private communications by the state and state agencies, including the judiciary, and sets forth specific requirements and limitations on the acceptance of electronic filings.
- 2) Statute applies to electronic filing of all documents with the state and state agencies and specifically excludes the judiciary; while allowing the judiciary to adopt rules for electronic filing of court documents.
- 3) Statute sets forth specific requirements for acceptance of electronic pleadings by the judiciary or authorizes further study by a task force or commission.

The scope and nature of the legislation depends on two core assumptions about electronic documents:

- ✓ electronic documents are less “reliable” than their paper counterparts and, therefore, the legislature must restrict the types of documents filed electronically or adopt comprehensive schemes to ensure: a) the person who signs a document is the actual person who submits the document; and b) the electronic document cannot be altered after it is submitted; or
- ✓ electronic documents are “the same as” original paper documents and, therefore, legislation should encourage electronic filing by broadening the coverage of electronic filing legislation and according electronic signatures the same force and effect as signatures on paper.

Depending on which of the above assumptions underlies the legislation, other states have adopted varying authentication schemes. Much of the electronic legislation suffers from confusion about the essential differences between electronic and digital signature technologies. The resulting legislation has created ambiguity as to the documents that are covered by the legislation and the nature of authentication requirements. The legislation addresses the authentication issue in the following ways:

- ✓ Statute defines and permits either electronic or digital signatures; provides criteria to establish authenticity of electronic signatures. (California model)
- ✓ Statute permits digital signatures only; provides a complex licensing scheme for certification authorities; most legislation creates a legal presumption that the person whose name is associated with the signature is, in fact, the person who signed the document. (Utah/Washington models)

- ✓ Statute defines and distinguishes between electronic and digital signatures; creates a rebuttable presumption that: (1) the digital signature is the signature of the person to whom it correlates, and (2) the digital signature was affixed by that person with the intention of signing an electronic record. (Illinois Draft legislation)
  - ✓ Statute does not distinguish between electronic and digital signatures, or fails to define electronic or digital signatures; statute usually provides that electronic signatures will have the same effect as an original signature. (North Dakota)
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## VII. BACKGROUND RESEARCH

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### EXPERIMENTS IN ELECTRONIC FILING

#### *Internet Gateway/.PDF Filings*

##### **United States District Court, Northern District Court of Ohio**

The United States District Court for the Northern District of Ohio began accepting electronic filings on its 1996 maritime asbestos docket. In June, 1996, the Northern District had more than 10,000 maritime asbestos cases filed and anticipated 15,000 to 20,000 more over the next few years. Each of the cases involved a plaintiff and 100+ defendants geographically dispersed throughout the country. In September, 1995, the Clerk of Court estimated that it would take 7-1/2 months to docket the 270,000 document backlog. The court sought a technological solution that would allow electronic filing of all case documents and provide electronic access to all pleadings.

Attorneys prepare documents on any commercially available word processor. Attorneys then “print” the documents into a .PDF format with .PDF software such as Adobe Acrobat. Attorneys then access the court’s central filing system through the Internet with any Internet browser. The court’s menu prompts the filer to provide a password that is issued by the Court. Attorneys follow a series of interactive steps to submit their .PDF document and to create the court’s docket entry. The system automatically stores the filed document in the court’s computer for viewing, with the aid of a .PDF viewer, by the bench, bar, and eventually, the public.

In its first year of operation, more than fifty attorneys around the United States submitted 20,000 electronic documents and created 100,000 docket entries.

**Lessons Learned:** The Northern District project demonstrates the ease of use of .pdf files, attorneys’ willingness and ability to use .pdf files and .pdf viewers; the creation of a password system for security and the utility of less restrictive authentication requirements.

#### *Public/Private Partnership*

##### **Prince George’s County District Court, Maryland**

In January, 1996, the circuit court for Prince George’s County entered into a public-private partnership with Andersen Consulting Group to develop electronic filing software. Andersen described its JusticeLINK software as “an innovative service revolutionizing electronic communications and information management among attorneys and courts. With JusticeLINK attorneys can obtain court information, access court legal records, conduct legal research, interact

with the clerk's office, file documents and communicate with other subscribers 24-hours a day." The JusticeLINK application is based on *Lotus Notes*.

The Prince George's County Circuit Court is a court of general jurisdiction handling civil cases, usually over \$20,000; serious felony cases and civil and criminal appeals from the district court or administrative agencies.

Nine law firms were selected for the pilot project. Seven of the participating firms specialized in personal injury law; two specialized in real-estate foreclosures. The project tested motor vehicle torts and property foreclosure cases. These case types were selected based on the relatively low volume of cases filed.

The pilot project is currently inactive. According to the final report issued September 2, 1997:

*"In the original project design, imaging was to be incorporated into Phase II of the project. However, due to technology restrictions encountered in the legal community, such as an incompatibility in the size of disk drives between the law office equipment and [court] computers, Andersen Consulting decided to introduce imaging immediately in Phase I. As a result, the anticipated advantages of eliminating redundant date entry were not realized and an unforeseen awkwardness was created in the filing process."*

The report further states that "in the legal culture of Prince George's County, the distinct advantages of electronic filing were not meaningful. Law firms that installed the JusticeLINK software did not use it. Two firms reported being "put off" by the awkwardness of the imaging process and that "it created extra steps."

Lawyer/participants responded to a follow-up survey with the comments noted below:

- ✓ JusticeLINK cannot be used for foreclosure actions because documents must be filed in Land Records first.
- ✓ We usually have time to mail pleadings at a low cost and we have attorneys at the circuit court at least three times a week.
- ✓ We are 500 feet from the courthouse. On average there is an attorney there daily.

Five of the nine participating law firms indicated that electronic filing with JusticeLINK was not a cost effective endeavor:

- ✓ At \$15.00 per filing, the charges are not justified.
- ✓ Mailing is the cheaper option....If we were networked and in *Windows* and the three local jurisdictions used JusticeLINK, (electronic filing would be more cost effective).
- ✓ If other personal injury lawyers used it so we could electronically send them their copy, it would be much less work.
- ✓ It is more work because it splits court filing duties.

Court clerks indicated that they needed "some kind of instrument to tell [them] exactly when the JusticeLINK system has pleadings. To keep checking is time consuming."

**Lessons Learned:** The Prince George's project highlights the importance of user involvement and input at all stages of the development process. The project demonstrates that electronic filing systems must impose the least fiscal and administrative burdens on the filer and should attempt to accommodate users with varying degrees of technical sophistication. Prince George's illustrates the need to test relatively high-volume, high-frequency case types for pilot projects.

### *Judicial Electronic Document and Data Interchange (JEDDI)*

#### **Utah Administrative Office of the Court**

In 1994, the state of Utah pioneered an electronic filing system based on the technology of electronic data interchange (EDI) and a mark-up computer language known as SGML. To electronically file documents, attorneys must first learn SGML. Attorneys then create documents with word processing software and attach SGML "tags" to certain elements of the documents before filing them with the court. For example, an attorney must tag the caption, "Motion for Summary Judgment" as "<title>Motion for Summary Judgment</title>". The attorney attaches the SGML document to an electronic mail message and sends the document to the court for filing.

**Lessons Learned:** The Utah project imposes high administrative and fiscal burdens on filers and may discourage non-attorneys and infrequent court users from using the electronic filing system.

### *Electronic Forms*

#### **Snake River Basin Adjudication District Court**

The Snake River Basin Adjudication, District Court (SRBA) in Twin Falls, Idaho is a civil court with exclusive jurisdiction to decide the right to use water in Snake River Basin, which covers ninety-five percent of Idaho. The SRBA is the largest case in Idaho history and covers over 150,000 claims.

The SRBA uses electronic forms software that allow court staff to design forms and allows filers to use the forms. Users access a menu provided by the forms software, choose a form and navigate through the fields with help screens when necessary. The user signs the form using a graphic signature (.tif file) and sends the form, with attachments to the courthouse and other parties via e-mail. A court computer periodically receives forms from an electronic mailbox. The forms are automatically routed to a clerk who reviews them and accepts or rejects them. An electronic date-time stamp is affixed to the form, the information is downloaded into the court's case management system and is available for public access. After a form is accepted by the clerk for filing, the information is "locked" in the court's database and cannot be altered.

**Lessons Learned:** The Snake River project demonstrates the utility of electronic court forms for filing of less complex, somewhat uniform case types. The project further demonstrates the feasibility of authentication of court pleadings by electronic signature.

### *Text Files and Imaging*

#### **King County, Washington**

In November, 1997, the King County Superior Court estimated that the court handled seven million pages per year. Washington law required the court to maintain "indefinitely" all signed documents in hard copy format for each casenote.

The increasing volume of court file papers prompted the Superior Court to build a court record file system based on electronic documents. A special court team scans millions of pages from 1997 archived cases, which will ultimately be available for reference at personal computers in the King

County courthouse. The court will eventually accept word processing documents, which will replace original paper documents.

**Lessons Learned:** The King County project demonstrates the impossibility of statewide implementation of an electronic filing system based on text file/imaging format. The project (for one court) requires a complex scanning operation that is time-consuming, costly, and creates large graphic files that do not allow electronic search capability. A requirement of a particular text-file format imposes undue burdens on filers and does not permit multi-platform access.

#### **Complex Litigation Automated Docketing (CLAD), Delaware**

In 1988, the Delaware Superior Court, New Castle County, Wilmington, Delaware began docketing complex insurance coverage suits concerning clean-up of waste disposal and pollution sites. The suits usually involve thirty to fifty companies and hundreds of insurance policies. Damages have ranged between \$500 million and \$700 million. In one case, in a period of six years, the superior court docketed over 5,500 filings. To meet the looming paper crisis, the superior court, in cooperation with Mead Data, developed an electronic filing system known as "Complex Litigation Automated Docketing (CLAD)." CLAD is operated by Mead Data's Private Database Division. Under the CLAD system, an attorney creates a document with word processing software. The firm is assigned an access code for the case. The firm contacts the CLAD system by modem and transfers the document over phone lines to CLAD. CLAD rules require service of a notice of electronic filing to be served on Delaware counsel, who in turn must serve out-of-town counsel. CLAD rules provide that a CLAD filing has the same Rule 11 significance as an attorney's signature on a paper filing. Parties are assessed a one-time fee of \$200.00 for a password that permits Delaware counsel to upload documents to the CLAD system. There is a \$4.00 filing fee on each pleading and download charges for viewing filed documents.

**Lessons Learned:** Electronic transmission of text files is unworkable as a statewide solution for electronic filing. By requiring a uniform filing format, the CLAD system cannot accommodate attachments; therefore, attorneys must file attachments in hard copy, which greatly diminishes the efficiency and storage features of a paperless system. Imaging by lawyers or court personnel requires fiscal expenditure and creates large, unmanageable graphic files. Under the CLAD system, lawyers objected to the stringent filing fees and viewing fees, particularly because parties only received a "Notice of Electronic Filing," which required them to pay LEXIS fees to view the filed document.

#### *World Wide Web Forms (Small Claims and Domestic Violence Filings)*

#### **Pima County, Arizona**

The Pima County, Arizona, Consolidated Justice Courts have sponsored a project to begin electronic filing of small claims and certain types of domestic violence petitions. Court users file documents over the Internet in a pre-printed electronic form. Users must affix a digital signature or a biometric token that can be obtained from a vendor linked to the court's website. The court computer generates a digitally signed receipt to the filing party. Information received by the court is stored in a court database and integrated into the court's case management system. Court fees are paid by credit card transaction using a commercial credit card approval service and electronic software.

**Lessons Learned:** The Pima County project demonstrates the feasibility of electronic forms for small claims and domestic violence filings from remote locations. The digital signature requirement may decrease use by *pro se* parties who ostensibly have the greatest need for the electronic system. Since parties to a domestic violence petition or small claims matter must appear in court before action is taken, the digital signature requirement appears unduly stringent.

## **LEGISLATION AND COURT RULES**

### **STATE LEGISLATIVE MODELS**

#### **California Gov. Code s. 16.5 (1995); 1995 Cal. Assembly Bill 1557, Enacted October 4, 1995**

Provides that "in any written communication with a public entity...., in which a signature is required or used, any party to the transaction....may affix a signature by use of a digital signature that complies with the requirements of this section. The use of a digital signature shall have the same force and effect as the use of a manual signature if and only if it embodies all of the following attributes:

- 1) unique to the person using it;
- 2) capable of verification;
- 3) under the sole control of the person using it;
- 4) linked to date in such a manner that if the data are changed, the digital signature is invalidated;
- 5) conforms to regulations adopted by the Secretary of State.

#### **Utah Digital Signature Act, Utah Code Annotated, Sections 46-3-101 to -504, Enacted 1995**

Pioneer digital signature legislation provides that "where a rule of law requires a signature....that rule is satisfied by a digital signature if:

- 1) that digital signature is verified by reference to the public key listed in a valid certificate issued by a licensed certification authority;
- 2) that digital signature was affixed by the signer with the intention of signing the message; and
- 3) the recipient has no knowledge or notice that the signer either:
  - (i) breached a duty as a subscriber; or
  - (ii) does not rightfully hold the private key used to affix the digital signature.

The legislation further provides that in disputes concerning the validity of a digital signature, Utah courts shall presume that that the digital signature is valid based on compliance with certain certification requirements.

#### **Arizona Rev. Statutes, Section 22-284**

Authorizes the presiding judge of the superior court to provide for the electronic filing of document and electronic access to justice court records, pursuant to rules adopted by the supreme court.

#### **Arizona Rev. Statutes, Section 12-119.02**

Authorizes the supreme court to provide for the electronic filing of documents and electronic access to court records, pursuant to rules adopted by the supreme court.

**1994 Mississippi Senate Bill 3061, House Bill 112**

Provides that all courts of the state may receive or retain electronic records in lieu of paper records in any proceeding, provided pleadings conform to rules and regulations prescribed by the administration of courts and adopted by the Mississippi Supreme Court.

**1997 Nevada A.B. 386, Enacted July 1, 1997**

Authorizes a court clerk to accept criminal complaints and informations that are filed electronically. Requires electronically filed documents to "contain an image of the signature of the prosecuting attorney."

**1997 Tennessee Senate Bill 525, Enacted May 27, 1997**

Amends various statutes defining terms "record," "writing," "signature," "signed," etc. to provide for the use of electronic writings and signatures.

**1997 Tennessee H.B. 1718, Enacted June 13, 1997**

Authorizes Tennessee courts to implement procedures for use of electronic signatures in signing of pleadings, court orders, judgments, and other court documents

**1997 Tennessee S.B. 1090, Introduced April 16, 1997**

Authorizes Tennessee courts to implement procedures for use of electronic signatures in signing of pleadings, court orders, judgments, and other court documents

**Illinois Electronic Commerce Security Act, Draft, December 15, 1997**

Draft distinguishes between electronic and digital signatures and applies to all communications.

Provides that an electronic signature satisfies any rule of law that requires a signature. A digital signature satisfies any rule of law that requires a signature and it is rebuttably presumed that:

- 1) the digital signature is the signature of the person to whom it correlates; and
- 2) the digital signature was affixed by that person with the intention of signing the electronic record.

**Massachusetts Electronic Records and Signatures Act, Draft, November 4, 1997**

The proposed legislation generally applies to all public and private communications and equates electronic signatures, including digital signatures, with traditional signatures. Provides that electronic records and electronic signatures satisfy rules of law that require manual signatures, and that such electronic records and signatures shall not be given legal effect because they are in electronic form. The draft provides that electronic records and signatures are admissible into evidence and shall be given evidential weight by the trier of fact. The draft, however, states that electronic records and signatures will not be given legal effect for records that a) "serve as a unique and transferable physical token of rights and obligations" including negotiable instruments and other instruments that confer title and b) are clearly inconsistent with legislative intent or contrary to the context of any rule of law.

**Hawaii Rev. Statutes, Chapter 601, Enacted, June 17, 1996**

Requires the state judiciary to convene a task force in consultation with the department of commerce and consumer affairs to explore programs for digital and electronic filing of court documents.

*Federal Legislative Models***Electronic Financial Services Efficiency Act of 1997; 1997 House Bill 2937, Introduced November 8, 1997**

Bill provides for the recognition of digital and other forms electronic authentication as an alternative to existing paper-based methods. The bill further provides that unless expressly prohibited by state

law, all forms of electronic authentication that comport with standards set forth in the bill would satisfy the requirements of a paper-based writing and signature where the writing or signature is required by law. The electronic authentication must: 1) reliably establish the identity of the maker, sender, or originator of an electronic document or communication; and 2) reliably establish the fact that the document or communication has not been altered.

**Electronic Commerce Enhancement Act; 1997 House Bill 2991, Introduced November 9, 1997**

Makes federal forms available to citizens over the Internet and would allow citizens to electronically submit forms to federal agencies using electronic signatures.

*Miscellaneous*

**American Bar Association, Digital Signature Guidelines**

The ABA, through its Section of Science and Technology, has published guidelines that provide a legal overview of the use of cryptology, electronic signatures, and entity authentication over open networks. The guidelines describe a system for ensuring the identity of the holder of a private key, for making digital signatures as usable in commerce and in legal proceedings as a written signature on paper, and for ascribing appropriate responsibility to those engaged in electronic commerce should one deny liability under the transaction.

**Administrative Office of the United States Courts, Technical Specifications and Technical Guidelines**

Provides mandatory functional requirements for implementation of electronic filing systems in the federal judiciary.

*State Court Rules*

**Ohio Rules of Civil Procedure, Rule 5(e)**

Authorizes local courts, by local rule, to provide for the filing of pleadings and other papers by electronic means. "Any signature of electronically transmitted pleadings or papers shall be considered that of the attorney or party it purports to be for all purposes. If it is established that the pleadings or papers were transmitted without authority, the court shall order the filing stricken."

**Arkansas Rules of Civil Procedure, Rule 5**

Permits service on an attorney by electronic means, if the attorney served has facilities within his or her office to receive and reproduce the transmission.

**Wisconsin Rules of Procedure, Rule 72.05**

Provides that court records specified for retention in Rule 72.02 (setting forth a retention schedule) and maintained as official or original information on electronic or optical storage systems shall be retained for the minimum time periods set forth in the prior rule governing paper storage.

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## X. MISSOURI'S CURRENT ENVIRONMENT (TECHNICAL AND LEGAL)

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### TECHNICAL ENVIRONMENT

Presently, the EC/2004 Project has established a set of standards for hardware and software, and procured case management applications which are flexible and powerful enough to support the implementation of electronic filing.

- IBM-compatible, PC-based client workstations
- Microsoft NT networking using TCP/IP
- Pentium-based servers
- Lotus Notes communications and groupware
- Microsoft Office applications suite
- Standardized portable document format (Adobe Acrobat)
- Banner Courts case management application
- Lotus Domino, browser independent, Internet server

As EC/2004 continues to expand the implementation of the infrastructure and case management, the requisite infrastructure capability for electronic filing will also expand.

The implementation of a fully integrated electronic filing system, will require the selection, development and implementation of a document management system. This was indicated in Andersen Consulting's report to the MCA committee, *EC/2004 Information Architecture* (EIA). This document management component will support many of the future applications and technologies in the EC/2004 Vision. While it is possible to implement a limited portion of electronic filing without the document management component, this Team does not recommend doing so except for the purposes of prototype testing or as a very early phase of testing.

### LEGAL ENVIRONMENT

#### LEGISLATION

*Recent legislation authorizes the Supreme Court of Missouri to adopt rules for electronic filing, storage and maintenance of court documents:*

**Section 476.050, RSMo**, authorizes the Supreme Court of Missouri to adopt rules for the electronic filing and storage of court documents. The statute provides that "writs, processes, proceedings and records may be filed, submitted, stored and maintained in an electronic format or otherwise in the manner provided by supreme court rule."

**Section 509.030, RSMo**, authorizes the Supreme Court of Missouri to establish signature requirements for pleadings. The legislation provides that "every pleading of a party represented by an attorney shall be attributed to at least one attorney of record in his individual name, whose address shall be stated. A party who is not represented by an attorney shall affix his name to his pleading and state his address....Pleadings shall be attributed to a party or attorney or signed in the

manner provided by supreme court rule. Any statutory requirement that pleadings be signed by any person shall be satisfied by compliance with such rules. Any statutory requirement that pleadings be acknowledged under oath, verified or notarized may be satisfied by a declaration that the pleading is made under penalty of perjury."

**Sections 545.040, 545.050, 545.060, 545.070, 545.240, 545.270, 545.930**, require criminal indictments to be "attributed to the prosecuting attorney" and require prosecuting attorneys to "affix" rather than "endorse" or "sign" such indictments. The provisions further authorize the Supreme Court of Missouri to establish signature and filing requirements for criminal information.

**Section 511.500, RSMo**, removes the requirement that judgments must be entered in a bound book and substitutes the term, "record." The statute provides, in pertinent part, that "an abstract of the judgment shall be entered in a record prepared and maintained in the manner prescribed by supreme court rule in the office of the circuit clerk.

#### RELATED MISSOURI LEGISLATION

*Missouri legislators have not enacted comprehensive electronic signature or digital signature legislation. The statutes identified below apply to limited situations involving electronic filings by candidates for public office.*

**Senate Bill 16**, enacted July 7, 1997, permits candidates for public office to electronically file reports "if a means become available which will allow a verifiable electronic signature." The legislation further provides that reports filed with The Missouri Ethics Commission are to be made available to the public to the maximum extent possible. It requires the Ethics Commission to post filed reports on the Internet by January 1, 1999 and no signatures are required to obtain public documents published by the Ethics Commission on the Internet.

**House Bill 893**, prefilled December 1, 1997, would require the Missouri Ethics Commission to establish and maintain an electronic reporting system for the electronic collection, filing and dissemination reports relating to elections. The proposed legislation requires candidates to sign an "original written copy" within five working days of the electronic filing; except that, if a means becomes available that will allow a verifiable electronic signature, the commission may also accept this in lieu of a written statement.

#### MISSOURI SUPREME COURT RULES

*Missouri Supreme Court Rules do not authorize filing by any form of electronic transmission, except by facsimile if authorized by a local court. The Supreme Court of Missouri permits facsimile filings of certain court documents in limited situations. The rules identified below are the principal rules that address document format – a format that is primarily based on a paper-based filing system. As set forth more fully in Appendix B, below, many civil rules refer to "writings," "papers," and "written" documents and will require review and possible revision prior to implementation of an electronic filing system. Appendix C, below, contains Missouri Rules of Criminal Procedure that refer to "writings," etc. Court rules that relate to other electronic filing issues are identified in this section.*

## RULES OF CIVIL PROCEDURE

### *Format and Filing Requirements*

#### **Document Format**

Rule 41.07 requires all pleadings and other papers, except exhibits, to be "on paper" not larger than 8-1/2" x 11" inches.

Rule 55.26(a) expressly refers to requirements for a written motion: "An application to the court for an order shall be by motion which, unless made during a hearing or trial, shall be made in writing, shall state with particularity the grounds therefore, and shall set forth the relief or order sought. The requirement of writing is fulfilled if the motion is stated in a written notice of the hearing of the motion." Rule 55.26(b) provides that the "provisions applicable to captions, signing and other matters of form of pleading apply to all motions and other papers provided for by these Rules."

#### **Filings**

Rule 43.02(b) requires all documents to be filed with the clerk of court. A judge may permit papers to be filed with the judge, who must note the filing date and transmit them to the clerk's office.

Rule 43.02(c) allows courts, by local rule, to permit filings by facsimile. Rule 43.02(d) authorizes fax filings of certain documents in the Supreme Court. A party must, however, show "extraordinary circumstances" to fax file most principal pleadings filed before the Court.

Rule 43.02(d)(4) assesses a handling fee of \$0.50 per page per copy for fax filings at the Supreme Court.

#### **Appeal**

Rule 81.08(a) provides that "the legal file shall be duplicated by any clear dry duplicating process approved in Rule 84.06, but may be typewritten or printed if the duplicating process is inadequate." The Rule sets forth detailed specifications for the trial transcript.

Rule 81.18(b) states that typewritten transcripts... shall be securely bound on the left side with either fasteners that extend a full one inch beyond the depth of the volume or spiral binding and shall have a left margin of not less than one and one-fourth inches. A volume of transcript shall not exceed two hundred pages.

Rule 81.18(c) requires legal files to be securely bound on the top or left side. If fasteners are used to bind the legal file, they shall extend a full one inch beyond the depth of the volume. A volume of the legal file shall not exceed two hundred pages.

Rule 83.04 states that an application for transfer may be printed or typewritten and shall not exceed six pages. Rule 83.04(d) requires the original application to transfer to be accompanied by a cover page substantially in conformity with Civil Procedure Form No. 15 and by a docket fee.

Rule 84.06(a) specifies the form of printed or duplicated briefs, petitions, motions, transcripts, and legal files in the Supreme Court.: "[a]ll printed briefs, petitions, motion, transcripts, and legal files shall have pages measuring 6-1/8 inches by 9-1/4 inches, printed on opaque and unglazed paper. The type matter shall be set in large 11 point type face on 14-point body, 25 picas wide (4-1/6 inches), not to exceed thirty-seven lines per page, including folio or page number. "Point Relied On" shall be in bold face type. The authorities cited thereunder shall be indented 2 ems on left side only, with run-over lines indented 4 ems. Footnotes, if any, shall be of same type as body of brief. Quoted matter shall be indented 2 ems on left side only."

Rule 84.06(b) states that parties shall have the option to file briefs either in standard printed form or by dry duplicating process. "Briefs produced by a process other than standard printing shall

conform either to the requirements of printed matter as set forth in Rule 84.06(a) or to the requirements for typewritten matter set forth in Rule 81.18.” Rule 84.06(b). Rule 84.06(c) requires color coded covers for filings in Missouri appellate courts. Rule 84.06(e) states that a “poor person” may file typewritten briefs.

### **Opinions and Orders**

Rule 84.16(a) requires a written decision in cases determined by the Supreme Court or by any district of the Court of Appeals,. If the decision is not unanimous, the rule requires a writing that shows which judges concurred therein or dissented therefrom.

Rule 84.16(b) pertains to memorandum decisions and written orders of Missouri appellate courts. Under the rule, when an appellate court determines that certain circumstances exist, the court may affirm the judgment by memorandum decision or by written order.

Rule 100.02(i) provides that on a petition for review before the Supreme Court of Missouri, the form, contents, filing and service of briefs and motions shall be as provided in Rule 84.

### *Verification/Signature Requirements:*

Civil case filings do not require signature authentication or content verification unless specifically required by rule or statute. Rule 55.03(a). Under Rule 55.03(b), every pleading, motion, or other paper filed must be signed by at least one attorney of record or by the party. By presenting or maintaining a claim, an attorney or party certifies the information in the pleading. Rule 55.03(b). Under Rule 55.03(c), an attorney is subject to sanctions for violation of Rule 55.03(b). An unsigned paper shall be stricken unless omission of the signature is corrected promptly after being called to the attention of the attorney or party.

Rule 43.02(c) provides that fax filings, if authorized by local court rule, shall have the same effect as the filing of an original document, even though the fax filing may be required to be verified or submitted by affidavit. The rule further provides that a facsimile signature shall have the same effect as an original signature. The person filing a pleading or other paper by facsimile transmission must retain the original and make it available upon order of the court.

Rule 54.02 requires civil summons to be signed under seal of the court.

The answers bearing the original signature of the party answering the interrogatories shall be served on the party that submitted interrogatories who shall be the custodian thereof until the entire case is finally disposed of. Rule 57.01(b)

Rule 74.01(a) states that a judgment is entered when a writing signed by the judge and denominated “judgment” is filed.

Rule 84.16(c) requires the clerk of an appellate court, when the opinion of the court is filed, to endorse the day on which the opinion is filed.

### *Timeliness of Filings:*

Rule 43.02(d)(5) provides that facsimile filings received at the Supreme Court of Missouri before 4:00 p.m. of a regular work day are deemed filed as of that day. Filings received after 4:00 p.m. are deemed filed on the next regular Court work day. Time of receipt is determined by the Court’s facsimile machine.

The Supreme Court's fax filing rule, Rule 43.02(d), provides that documents are filed on the date and at the time shown on the Court's fax machine.

Rule 44.01(e) authorizes an additional three days for a party to respond to pleading served by mail. No similar provision exists for fax filings.

Rule 45.01 state the courts shall be deemed always open for the purpose of filing any pleading or other proper paper, of issuing and returning mesne and final process, and of making and directing all interlocutory motions, orders and rules.

Rule 46.01 provides that the clerk's office with the clerk of a deputy in attendance shall be open during business hours on all days except Sundays and legal holidays.

*Acceptance of Pleadings:*

Rule 43.02(b) provides that pleadings and other papers shall be made by filing them with the clerk of the court, except that a judge may permit the papers to be filed with the judge, who shall note thereon the filing date and forthwith transmit them to the office of the clerk.

Rule 43.02(d)(5), which authorizes fax filings in the Supreme Court, provides that if a document is not received the clerk or if it is illegible, it is deemed not filed. Risk of loss in transmission, receipt or illegibility is upon the party transmitting and filing by fax.

Rule 81.04(c) states that a docket fee of fifty dollars in the appellate court shall be deposited with the clerk of the trial court at the time of filing the notice of appeal. "No notice of appeal shall be accepted and filed by the clerk of any trial court unless the docket fee is deposited therewith or the appellant is not required by law to pay the docket fee..." Rule 81.04(c).

Rule 84.24(a) requires petitions for original remedial writs to be accompanied by a docket fee.

Rule 100.02(b) assesses a docket fee in petitions for review in the Supreme Court. The rule provides that the docket fee must be deposited with the clerk of the appellate court at the time of filing a petition for review under section 287.495, RSMo. No petition for review shall be accepted and filed by the clerk of the appellate court.... unless the docket fee is deposited therewith. If a petition for review or notice of appeal is accepted without timely payment, the petition may be dismissed.

Rule 84.06(a) provides that the clerk shall refuse to receive any such printed matter which does not substantially conform to the formatting requirements set forth in Rule 84.06(a).

## MISSOURI RULES OF CRIMINAL PROCEDURE

*Document Format*

**Format and Filing Requirements**

Rule 19.09 provides that "all criminal pleadings and other papers, except exhibits offered for filing in any court and all forms used in any, including opinions, shall be on paper of a size not larger than 8-1/2 x 11 inches. An exhibit may be on paper larger than size 8-1/2 x 11 inches. Briefs shall be prepared as provided in Rule 81.18 and Rule 84.06. The use of recycled paper is acceptable and encouraged."

The following rules require a criminal filing to be "in writing:"

- ✓ Misdemeanors. A complaint must be in writing...Rule 21.04
- ✓ Misdemeanors-Summons-Contents. The summons shall be in writing...Rule 21.06
- ✓ Misdemeanors. The warrant of arrest must be in writing... Rule 21.07(a)

- ✓ Felonies-Complaint. A complaint must be in writing....Rule 22.02
- ✓ Felonies-Warrant of Arrest. The warrant of arrest must be in writing....Rule 22.04(a)
- ✓ Misdemeanors or Felonies-Indictment or Information-Form Of. The indictment or information shall be in writing signed by the prosecuting attorney, and filed in the court having jurisdiction of the offense.

### **Appeal**

Rule 30.04(a) specifies the requirements for the record on appeal in a criminal matter: the legal file shall be labeled with a cover page and contain clearly reproduced exact copies of the indictment or information and other portions of the trial record previously reduced to written form....The transcript shall contain the portions of the proceedings and evidence not previously reduced to written form....

The parties may agree in writing upon an abbreviated or partial transcript...

Rule 30.04(e) provides requirements for the record on appeal in a criminal matter: "the legal file shall be duplicated by any clear dry duplicating process approved in [Rule 84.06-Civil Rules] but may be typewritten or printed if the duplicating process is inadequate. The transcript shall be typewritten or printed or prepared by any other clear dry duplicating process. If typewritten, the legal file or transcript shall comply with the requirements of Rules 81.18 and 84.06[Civil Rules]. If duplicated, the legal file shall be a true copy of the original documents."

### **Opinions**

Rule 30.25(a) requires a written opinion in criminal appeals: "except as in subsection (b) of this Rule, in each case determined by [the Supreme Court of Missouri] ...the appellate judicial opinion shall be in writing..."

### *Verification/Signature Requirements*

Rule 21.07(b)(6) pertaining to arrest warrants in misdemeanor cases requires the warrant to be signed by a judge or by the clerk of the court.

Rule 22.04(b) pertaining to arrest warrants in felony cases requires the warrant to be signed by the judge or by the clerk of the court..

Rule 21.04 provides that complaints in misdemeanor cases must be verified by oath or affirmation of the complainant..

Rule 23.01(a) requires indictments or informations in misdemeanor or felony cases to be signed by the prosecuting attorney and filed in the court having jurisdiction of the offense. The rule further requires the indictment to be signed by the foreman of the grand jury.

Rule 24.035(g) requires amended post-conviction motions to be signed by the movant or counsel.

Rule 30.25(c) requires the clerk of an appellate court, when the opinion or summary order of the court is filed in his office, "to endorse the day on which it is filed, enter the same on his minutes, make a true copy thereof, and transmit the same without delay to the trial court."

Rule 32.02 pertaining to change of venue by agreement in misdemeanors or felonies requires stipulation to change of venue to be signed by the defendant or the defendant's attorney.

Rule 32.03(a) provides that in misdemeanor and felony cases, an application for change of venue as a matter of right need not be verified, but must be signed by the defendant or the defendant's attorney.

Rule 32.04(d) provides that an application for change of venue for cause need not be verified, but must be signed by the defendant or the defendant's attorney.

Rule 32.06(a) pertaining to an application for change of judge at a preliminary examination states that the application need not be verified and may be signed by any party or any attorney for any party.

Rule 32.07(a) states that a change of judge application in any criminal proceeding need not be verified and may be signed by any party or an attorney for the party.

Rule 36.01 states that a judgment of criminal contempt and the order of commitment shall recite the facts and shall be signed by the judge and entered of record.

#### *Timeliness of Filings*

Rule 20.01(e) allows a party three additional days to respond or act when a document is served by mail.

Rule 20.02(a) provides that the court is always open for the purpose of filing any pleading or other proper paper...in misdemeanor and felony cases.

#### *Acceptance of Filings*

Rule 20.04(g) states that the filing of papers with the court shall be made by filing them with the clerk of the court except that a judge may permit the papers to be filed with him, in which event he shall note thereon the filing date and forthwith transmit them to the office of the clerk.

Rule 30.01(d) states that no notice of appeal by a defendant shall be accepted and filed by the clerk of any trial court unless a docket fee is deposited therewith or the defendant obtains leave of court to appeal as an indigent person.

### ADMINISTRATIVE RULES

#### *Format and Filing Requirements*

Administrative Rule 1 generally provides for the creation of a statewide judicial information system (SWJIS). Under SWJIS, "Missouri Courts with computerized capability may submit their data to [a] central site electronically. A.R. 1.06(2). The rule further provides for uniform case numbers (A.R.1.12), uniform criminal charge codes (A.R. 1.13), uniform civil action codes (A.R. 1.14) and uniform attorney identification numbers (A.R.1.16).

Administrative Rule 4 sets forth requirements for judicial record keeping in the Circuit Court, which "system shall be mandatory for the form, style, and maintenance of records dealing with civil, criminal, juvenile, and probate case activity and judgments." A.R. 4.01. Certain provisions require clerks of court to maintain "separate index cards" (A.R. 4.03) for parties, which are "housed in a cabinet designed for index cards." (A.R. 4.03(4)). The rule states that "interested parties may examine the index only under the clerk's supervision." (A.R. 4.03(4)). A.R. 4.05 requires case filings to be maintained in file folders of a specific color, in an area designated for closed cases. A.R. 4.07 pertains to "File Security" and provides that "all original papers shall be securely fastened to the case file folder in a chronological order." A.R. 4.07(3) states that "no file may be removed from the

clerk's office by anyone other than court personnel." A.R. 4.08 states that copies of the contents of a case file may be furnished to one entitled thereto upon payment of the copying charge involved. A.R. 4.15 requires a "judgment card" and a "transcript judgment card."

*Verification/Signature Requirements*

Administrative Rule 4.09 requires orders or judgments entered on a docket sheet by a judge or clerk to be signed by the judge or supported by a memorandum in the record signed by the judge. Rule 4.09 states that all other docket entries must be signed by the court clerk.

*Storage/Retrieval of Case Documents*

Administrative Rule 4.10 requires the clerk to maintain a duplicate of the judge's docket sheet. The clerk's docket sheet must be filed in a binder and be stored in a fireproof location, separate from the case files, active or closed. A.R. 4.10.

A.R. 8 provides for a uniform system for the retention, transfer and destruction of manual and computerized records of the courts in the state of Missouri. A.R. 8.03 sets forth records retention and destruction procedures.

*Public Access to Judicial Databases and Court Information*

Administrative Rule 1.11 establishes privacy and confidentiality guidelines for all courts that use data processing.

A.R. 4.20 sets forth requirements for case records that are closed pursuant to Chapter 610, RSMo, and requires the clerk of court to maintain a separate index of all closed records.

Administrative Rule 20 sets forth the open records policy of the Supreme Court of Missouri.

SURVEY OF MISSOURI'S LEGAL COMMUNITY

*As part of its study, the Team, in cooperation with The Missouri Bar, sent an informal survey to 3500 Missouri attorneys to determine their views about electronic filing and current technical capabilities. The Bar mailed the ten-question survey (see Appendix D) on December 11, 1997 to members of the Bar at law firms throughout the state of Missouri. Eight days later, on December 19, 1997, the Bar received 785 responses. Relevant response data is summarized in tables 5.1, 5.2 and 5.3 below:*

TABLE 5.1

ELECTRONIC FILING			
	<b>Would You Consider Electronic Filing?</b>		
<b>Firm Size</b>	<b>Yes</b>	<b>No</b>	<b>Maybe</b>
Solo Practitioner	348	59	3
2-5 Attorneys	268	22	2
6-10 Attorneys	42	3	0
11-25 Attorneys	20	0	0
26-50 Attorneys	6	0	0
51-100 Attorneys	1	0	0
100+ Attorneys	11	0	0
<b>Total</b>	<b>696</b>	<b>84</b>	<b>5</b>

TABLE 5.2

<b>TECHNICAL CAPABILITY</b>					
<b>Firm Size</b>	<b>Windows (3.xx or later version)</b>	<b>DOS</b>	<b>Macintosh</b>	<b>Unix</b>	<b>None</b>
Solo Practitioner	292	34	9	2	11
2-5 Attorneys	226	30	11	0	0
6-10 Attorneys	32	9	1	0	0
11-25 Attorneys	19	1	0	0	0
26-50 Attorneys	6	0	0	0	0
51-100 Attorneys	1	0	0	0	0
100+ Attorneys	9	1	1	0	0
<b>Total</b>	<b>585</b>	<b>75</b>	<b>22</b>	<b>2</b>	<b>11</b>

TABLE 5.3

<b>REASONS GIVEN FOR NOT FILING ELECTRONICALLY</b>			
<b>Firm Size</b>	<b>No computer/Lack of technical capability</b>	<b>Distrust of Electronic Transmission</b>	<b>Other</b>
Solo Practitioner	46	12	1
2-5 Attorneys	17	4	1
6-10 Attorneys	3	0	0
11-25 Attorneys	0	0	0
26-50 Attorneys	0	0	0
51-100 Attorneys	0	0	0
100+ Attorneys	0	0	0
<b>Total</b>	<b>66</b>	<b>16</b>	<b>2</b>

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## XI. RECOMMENDATIONS

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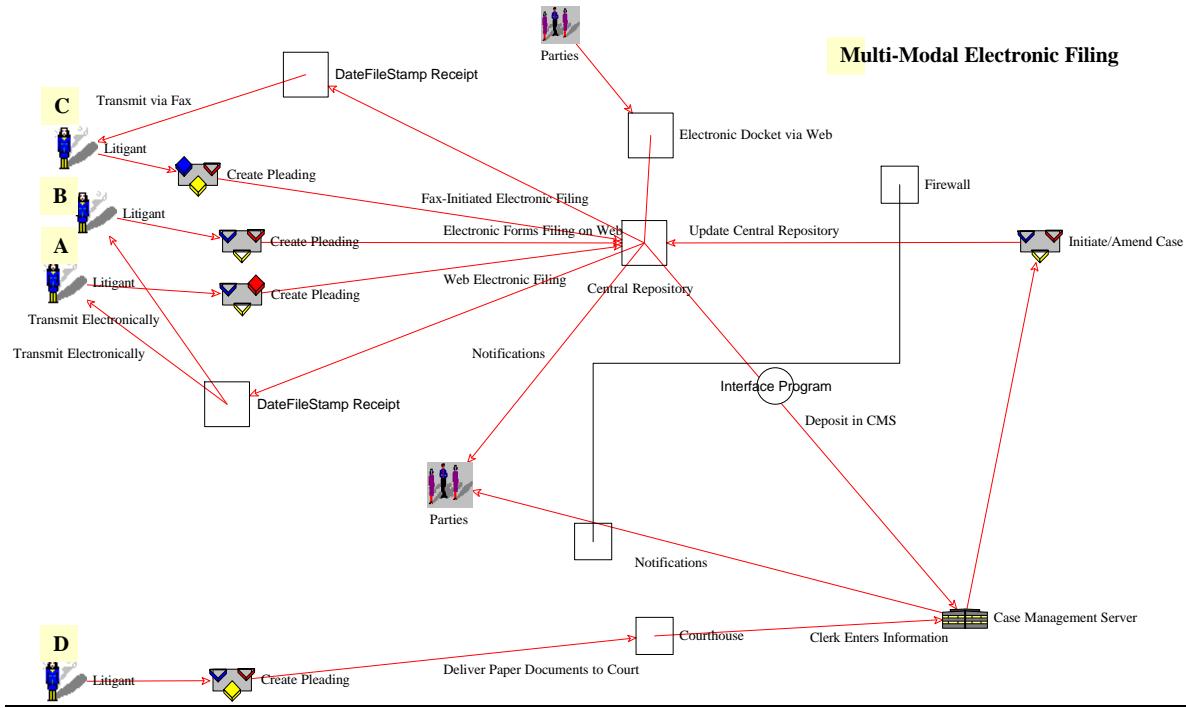
Perhaps the most important lesson gleaned from background research and analysis of the technical, legal and fiscal issues is that the element of "timing" is a key factor in successful development and implementation of an electronic filing system. The original intent of the EC/2004 Project was to bring new facilities and efficiencies to the courts and to non-judicial participants in the judicial/adjudicatory process. Electronic filing is one of the most "expected" facilities to come from the EC/2004 Project, the other is case management. As the EC/2004 Project approaches the midpoint of its 10-year span, it is becoming vital that electronic filing be added to the implementation schedule as soon as possible.

In addition to project schedules, the discussion of timing encompasses the fact that technologies must be sufficiently developed and tested to achieve the greatest benefits for the judiciary, while exacting the least fiscal and administrative toll on court users. Timing also means that the judiciary must have the requisite infrastructure in place to facilitate electronic transfer of court information and to remove redundancy, duplication and error inherent in a paper-based system. It is also necessary to engage in forward-thinking and future planning to effectuate the transition and eventual acceptance of an electronic filing system by the judiciary, court personnel, members of the legal community and other court users. Failing to begin addressing these issues immediately may lead the Project to a point where it is impossible to implement electronic filing as robustly as desired due to barriers resulting from decisions and directions which the Project adopts in other areas.

The Team concludes that the Missouri state judiciary, by addressing electronic filing now, has the essential element of timing on its side and, therefore, the judiciary stands ready to provide the benefits offered by an electronic filing system. Web-based technologies and Internet architecture offer the potential to facilitate secure electronic access across multi-platforms, while promoting interaction among the judiciary and the public it serves. Missouri state courts also have the unique advantage of sharing a common electronic link through the Statewide Judicial Information Network. The Team further believes that review and revision of legislation and court rules and the development of communications plans and educational programs for all members of the legal community must go hand-in-hand with technological development tasks and pilot testing. The Team, therefore, recommends a multi-phased, multi-tasked approach to electronic filing — an approach that it believes can eventually lead to statewide implementation of an electronic filing system that is fully integrated with the state judiciary's case management system — all in furtherance of the Service, Justice, Access vision of EC/2004.

The Missouri judiciary is in a unique position to provide the benefits of an electronic filing system. The development of proven web-based technologies offer court users access to Missouri state courts across multiple platforms at minimal cost. The Statewide Judicial Information Network provides the essential platform on which to build an electronic filing system. Electronic signature and digital signature technologies offer security and authentication capability that is unattainable in a paper-based environment. The results of the Survey of Missouri's Legal Community appear to demonstrate its support for an electronic filing system. The Team, therefore, concludes that no legal or technical barriers exist to impede immediate development of an electronic filing system for eventual implementation in all Missouri state courts. In order to support all users, attorney and *pro se* litigants alike, and because doing so would not impose a significant burden, the Team recommends that electronic filing offer multi-modal capabilities. Specifically, that multiple pathways be made available for electronic filing. These should include fax-initiated electronic filing, Web email filing, Web forms filing, and the traditional paper filing. The Team recommends the development of a prototype in accordance with the process flows and functionalities identified below.

## GRAPHIC OVERVIEW OF RECOMMENDED PROCESS



## NARRATIVE OVERVIEW OF RECOMMENDED PROCESS

### DOCUMENT PREPARATION AND FILING

#### *Alternative A: Web Electronic Filings*

Attorney or *pro se* litigant prepares a text document (complaint, petition, motion, brief, correspondence) using word processing software. Filer saves the document in "portable document format (.pdf)." Filers access Missouri Courts' web site using an Internet browser. The web site links to a document filings screen that provides initial information to users and initiates a log-in process. Attorney must provide password issued by the Supreme Court and other log-on information to submit an electronic pleading or other document. User follows prompts to enter case information and to attach the .pdf file. User clicks "submit" button to file document in central repository.

#### *Alternative B: Web Form Filings*

Attorney or *pro se* litigant goes to Missouri Courts' web site using an Internet browser. User follows log-in procedures indicated in Alternative A and select the form desired (adult abuse, small claims). User fills in requested information on the form and clicks "submit" button to file the document in central repository.

*Alternative C: Facsimile-Initiated Electronic Filings*

- 1) **Fax Modem:** User prepares document using word processor and transmits document electronically by fax modem to central repository.
- 2) **Paper Fax:** User prepares and prints document then transmits via fax machine to a central repository.

*Alternative D: Paper Filings*

All courts accept paper filings. Clerk's office transmits relevant docket information to the central repository at the time of filing. Documents filed in paper format may be viewed in hard copy at the clerk's office where documents are initially filed.

2. RECEIPT AND ACKNOWLEDGMENT

The central document management repository automatically routes documents to the court and sends a file/date-stamped receipt to the filing party. The repository also sends receipts to the other parties of record.

3. DOCUMENT MANAGEMENT

Electronic filings are received and directed to the appropriate court via the central repository. Once the documents have been stored the case information is forwarded to the case management system for inclusion in the case record. From the moment of acceptance documents are classified, tagged and directed for appropriate storage and retrieval in accordance with confidentiality requirements and court records retention/destruction schedules.

4. INTEGRATION WITH CASE MANAGEMENT

The document management repository interacts with the case management system to exchange data and information on case activities. The document management repository has components outside the firewall to provide public access to information and documents, and inside the firewall to interact with the CMS. The document management repository provides a bridge between the CMS and the Web environment to facilitate the integration of electronic filing.

#### **RECOMMENDED FUNCTIONALITIES**

- ✓ Permits electronic filing of court documents and facilitates electronic access to public court information by all court users, including *pro se* parties, regardless of their level of technical sophistication.
- ✓ Permits multi-modal filings, including paper, fax-initiated electronic filing, Web electronic forms filing and electronic transmissions over the Internet for all case types and documents filed in Missouri state courts.
- ✓ Promotes the EC/2004 vision of enhanced public access to Missouri state courts by imposing the least fiscal and administrative burdens necessary to maintain a level of security as great or greater than exists in a paper-based filing system.
- ✓ Utilizes a central document repository and provides the capability for data interchange with a case management system.
- ✓ Utilizes electronic signature technology to authenticate electronic case filings and a password system to ensure filings are made by parties of record in the central repository.
- ✓ Integrates with a document management system that archives and retains active and nonactive electronic case records for storage and retrieval of electronic case filings, subject to a retention and destruction schedule.
- ✓ Maintains the integrity of the public record and the nondisclosure of confidential court records.
- ✓ Provides prompt and accurate acknowledgment of electronic filings to filers and parties of record.

## **DEVELOPMENT TASKS**

### **TECHNOLOGY TASKS**

Prioritize electronic filing development activities based on a multi-phased approach that considers, among other things, relative ease of implementation, implementation capability statewide, cost, and ultimate benefit to court users.

Develop selection criteria for pilot courts and pilot law firms based on relatively high-volume case types, frequent and technically proficient filers with the ability to file documents in multiple formats in relatively high-traffic courts.

Conduct pilot projects to test multiple modes of filing, including, but not limited to, World Wide Web forms for small claims and domestic abuse filings, fax-initiated electronic filings, and Web electronic filings.

### **LAW-RELATED TASKS**

Conduct a comprehensive review of Missouri Revised Statutes and Missouri Supreme Court Rules, including administrative rules, to consider and address the following issues:

- Clarification of terms such as “paper,” “writings,” “written,” etc., that may create ambiguity and uncertainty about filing in an electronic environment.
- Adoption of signature requirements for electronic filings
- Revision of Supreme Court rules that condition acceptance of pleadings on the payment of a docket fee in view of the technical difficulties this requirement may pose in an electronic filing system.
- Revision of Supreme Court rules that limit filing times, refer to “working hours” or “regular business hours” in favor of policies that promote public access by allowing electronic filings to be submitted at any time and to be accepted at the time received by the central registry, subject to acceptance by the court clerk.
- Revision of Supreme Court rules that permit judges to accept filings and transmit them to the clerk of court in view of the need for a central electronic repository of court documents and the burdens such a rule could impose on judges in an electronic environment. For example, would the current rule permit a judge to receive an electronic filing at his or her home, and, if so, would the rule require the judge to make regular checks of his personal system to determine whether a pleading was filed?
- Consideration of the method of adopting rules that will promote adaptability of the electronic system to the needs of court users, while accommodating technological change. Should the Supreme Court adopt a general rule that authorizes electronic filing and prescribe specific requirements in administrative rules? Should requirements be set forth in specific rules of civil and criminal procedure?

- Revision or repeal of outdated Administrative Rules that no longer apply to the EC/2004 project and specifically relate to recordkeeping procedures in a paper-based system.
- Encourage all districts of the Missouri Court of Appeals and divisions of the circuit court to review local court rules for ambiguities and areas for clarification in anticipation of an electronic filing alternative.
- Support legislation that permits the judiciary to enact rules pertaining to authentication and signature requirements for electronically filed court documents.
- Develop fiscal policies and rules that promote the use of an electronic filing system by imposing no additional fee on electronic filings, repeal or revise rules that charge additional fees for facsimile filings, and eventually assess additional fees for paper filings to defray administrative costs associated with paper.
- Develop a plan in cooperation with The Missouri Bar that provides ongoing and complete updates to Missouri lawyers about the status of electronic filing pilot projects and the technical requirements necessary to use Missouri's electronic filing system.
- Develop a training plan for members of the Missouri Bar to educate attorneys about the benefits of electronic filing, characteristics of an electronic filing system, including security and authentication features, and instructs them on how to use an electronic filing system.
- Develop a training plan through Judicial Education, Office of State Court Administrator, to educate members of the Missouri state judiciary and court personnel about the benefits of electronic filing, characteristics of an electronic filing system, including security and authentication issues, and to train them to use an electronic filing system.
- Develop a communications plan through the Office of Communications Counsel, Supreme Court of Missouri, in cooperation with Judicial Education, Office of State Court Administrator, to provide ongoing and complete updates to the Missouri state judiciary and court personnel about the status of electronic filing pilot projects.

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## **SELECTED REFERENCES**

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### **EXPERIMENTS IN ELECTRONIC FILING**

*Electronic Case Files in the Federal Courts: A Preliminary Examination of Goals, Issues, and the Road Ahead.* Discussion Draft, March 1997. Administrative Office of the United States Courts. March 13, 1997.

*Electronic Court Records (ECR): An Overview.* King County Superior Court, King County Clerk's Office. November 14, 1997.

*Electronic Filing in Arizona: An Analysis of Issues; Recommendations for Implementation.* State Bar of Arizona, Electronic Filing Team, Technology Task Force. November, 1996.

*Electronic Filing of Case File Documents. Session No. 103: Electronic Filing and Judicial Electronic Document and Data Interchange.* Asay, Alan, Utah Administrative Office of the Courts. Prepared for the Fourth National Court Technology Conference, National Center for State Courts, October 1994.

*CLAD – Delaware's Paperless Docket. Session No. 103: Electronic Filing and Judicial Electronic Document and Data Interchange.* Katzenstein, Esq., Robert J. and Del Pesco, The Honorable Susan J. Prepared for the Fourth National Court Technology Conference, National Center for State Courts, October 1994.

*Electronic Filing. Session No. 103: Electronic Filing and Judicial Electronic Document and Data Interchange.* Egar, David J., Snake River Basin Adjudication District Court. Prepared for the Fourth National Court Technology Conference, National Center for State Courts, October 1994.

*Report of the 1993 Pilot Project: Electronic Filing of Case File Documents in Utah Courts.* Asay, Alan, Utah Administrative Office of the Courts. December 15, 1993.

*JusticeLink Pilot Project, Prince George's County, Maryland, Final Report.* Walker, Linda L. and McMillan, James E. September 2, 1997.

### **DIGITAL AND ELECTRONIC SIGNATURE**

*Digital Signature Tutorial.* Division of Corporations and Commerical Code, Utah Digital Signature Development Program. Tutorial and related information available at:  
<http://www.commerce.state.ut.us/web/commerce/digsig/dsmain.htm>.

*Summary of Electronic Commerce and Digital Signature Legislation.* McBride, Baker & Coles, P.C. Available at:  
<http://www.mbc.com>.

*Electronic Signatures: A Compendium of Information and Web-Based References.* State of Kentucky, Electronic Signatures Subcommittee. Available at: <http://www.state.ky.us/agencies/elecsig/>

*Digital Signature Guidelines: Legal Infrastructure for Certification Authorities and Secure Electronic Commerce.*  
Information Security Committee, Electronic Commerce and Information Technology Division,  
Section of Science and Technology, American Bar Association. August 1, 1996.

*Utah Digital Signature Act*, Utah Digital Signature Act, Utah Code Annotated, Sections 46-3-101 to -504,  
Enacted 1995 . Available at::

[http://www.commerce.state.ut.us/web/commerce/digsig/dsmain.htm.](http://www.commerce.state.ut.us/web/commerce/digsig/dsmain.htm)

#### **COURT RULES AND STANDARDS**

*Missouri Court Rules, Volume I.* West Publishing Company. 1997

*Wisconsin Court Rules and Procedure.* West Group. 1998

*Maryland Rules of Procedure, Chapter 1200.* Management of Litigation Subcommittee. April, 1995.

*Technical Specifications and Guidelines.* Administrative Office of the United States Courts. Available at:  
<http://www.courts.net/filing3.htm>

Greacen, John M., *Court Rules Related To Technology.* The Court Manager, Spring 1995.

#### **MISCELLANEOUS**

Cashman, Victoria S., *The Emerging Electronic Connections For Courts.* The Judges' Journal. Summer 1993.

Harris, Peter., *Public Records Go Electronic.* State Legislatures. June 1992.

Anderson, Robert, et al., *The Impact of Information Technology on Judicial Administration: A Research Agenda for the Future.* Southern California Law Review, Vol. 66 at p.1761 (1993).

#### **FEDERAL ELECTRONIC FILING MODELS**

Northern District of Ohio (Cleveland), Operational 1/1/96 for Maritime Asbestos Litigation Activity: 10,000+ cases, 130,000 docket entries, 50 lawyers

Southern District of New York (Manhattan), Operational 11/25/96, Chapter 11 (Corporate) Bankruptcy cases: 110 cases, 2500 docket entries, 50 lawyers

Western District of Missouri (Kansas City), Operational 10/31/97 for Civil Litigation.

Eastern District of New York (Brooklyn), Operational 11/24/97 for Civil Litigation

Northern District of Ohio (Cleveland), Operational 11/12/97 for Civil Litigation

Oregon, operational 11/21/97 for Civil Litigation

Arizona, operational 10/1/97 for bankruptcy litigation

Southern District of California, San Diego, not yet operational for bankruptcy litigation (Chapter 7)

Northern District of Georgia, Atlanta, operational 11/3/97 for bankruptcy litigation (Chapter 13)

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## APPENDIX A: DEFINITIONS

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**Authentication:** the process used to confirm the identity of a person or to prove the integrity of specific information. In the case of an electronic message, authentication involves determining its source and providing assurance that the message has not been modified or replaced in transit.

**Document:** An individual item of recorded information regardless of physical form or characteristics.

**Document Management System:** Document management software addresses a common organizational problem – the inability to retrieve and manage electronically generated unstructured information in an efficient manner. Document management tools facilitate the needs of multiple users who work on or need to retrieve a single document or group of documents, regardless of document format. Document management systems provide the ability to profile electronically created files for fast and easy retrieval. The software allows documents to be associated with indexes that describe the file, such as document type, author, application, etc., Additionally, the software tracks revisions made to documents, and provides added security.

**CCITT:** Consultative Committee for International Telephony and Telegraphy (now named International Telecommunications Union-Telecommunication Standards Section (ITU-TSS), but the CCITT acronym remains in use). A standards-setting organization headquartered in Geneva. CCITT facsimile standards establish the coded format in which fax images are transmitted and includes resolution, compression, and transmission baud rate fax transmission.

**CMS:** Case Management System, specifically Banner Courts.

**Digital Signature:** the use of asymmetric cryptography to create the mark used to manifest the intent of the signer. Typically these are not directly visible when displayed or printed, but are recognized by the application or computer system as unique to its message, useless if detached, and therefore authentic.

**Electronic Signature:** any letters, characters, or symbols manifested by electronic or similar means and executed or adopted by a party with the intent to authenticate a writing. For the purposes of this paper, these specifically refer to these manifestations which are made visible on the document when presented on the screen or printed out. This is frequently accomplished by “pasting” an image of an actual pen and ink signature into the document.

**Internet:** The Internet is a combination of several large computer networks joined together over high-speed data links. The most prominent of the national networks are MILNET (Military Network), NSFNET (National Science Foundation Network), and CREN (Corporation for Research and Educational Networking). Commercial networks including AT&T, MCI, Sprint and many others are connected and carry a large portion of the traffic. In 1995, the Government Accounting Office said that the Internet linked 59,000 networks, 2.2 million computers and 15 million users in 92 countries. The Internet's networking technology is very smart. Every time someone hooks a new computer to the Internet, the Internet adopts the hookup as its own and begins to route traffic over that hookup and through that computer. The Internet uses a unique 32-bit number for addressing computers called Internet Protocol (IP).

**Records Management :** the planning, controlling, directing, organizing, training, promoting and other managerial activities related to the creation, maintenance and use, and disposition (and destruction) of records to maintain materials properly, retrieve the rapidly, ensure their completeness and make their disposition easier.

**TCP/IP:** Transmission Control Protocol/Internet Protocol. TCP/IP is a set of protocols developed by the Department of Defense to link dissimilar computers across many kinds of networks and local area networks (LANs). It includes the Internet Protocol (IP) layer is a subset of the TCP/IP suite. IP provides the addressing needed to allow routers to forward packets of data across a multiple LAN inter-network. The Application layer manages the function required by user programs and includes protocols for remote log-in, file transfer, and electronic mail.

**TIFF:** Tagged Image File Format is a widely used raster graphics file format. The format can provide compression ratios of from 10:1 to 20:1 using CCITT Group III & IV. TIFF files have a .tif file extension.

**World Wide Web:** Also called the Web, it is the universe of accessible information available on many computers spread through the world and attached to the gigantic network called the Internet. The web has a body of software, a set of protocols and a set of defined conventions for getting at the information on the Web. The Web uses hypertext techniques to make it easy to roam, browse, and contribute information. Applications which run on personal computers to view the information on the World Wide Web are called Browsers.

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## **APPENDIX B: WRITTEN REQUIREMENTS - MISSOURI RULES OF CIVIL PROCEDURE**

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Because Missouri Supreme Court Rules of Civil Procedure sometimes require “a writing,” “writings,” “written” “papers, etc.”, and in other instances do not, the Team recommends a comprehensive review of all Court rules to:

1. determine whether an electronic transmission will, in all instances, satisfy requirements for “written” documents, etc.
2. determine whether a traditional format, i.e., paper, should be required in any filing.

The table below provides a listing of the Missouri Supreme Court Rule of Civil Procedure that refer to some form of written requirement. Though comprehensive, the listing may not identify every reference to requirements applicable to a paper-based filing system. The list is intended to demonstrate the varied instances in which the Court has required a written document and to provide a foundation for the above-described review.

<b>Rule 43.01(a)</b>	Every pleading, subsequent to the original petition, every written motion, other than one that may be heard ex parte, and every written notice, appearance, demand, offer of judgment, order and similar paper that by statute, court rule or order is required to be served shall be served upon each of the parties affected thereby...
<b>Rule 43.01(d)</b>	Service-How Shown. Service may be shown by acknowledgment of receipt or by affidavit or by written certificate of counsel making such service.
<b>Rule 44.01(d)</b>	Motions-Notice Required-Affidavits. A written motion, other than one which may be heard ex parte, and notice of the hearing thereof shall be served not later than five days before the time specified for the hearing...
<b>Rule 51.03(a)</b>	Change of Venue. A change of venue shall be ordered in a civil action.... upon the filing of a written application....The application need not be verified and may be signed by any party.
<b>Rule 51.05(a)</b>	Change of Judge. A change of judge shall be ordered in any civil action upon the timely filing of a written application therefor by any party....The application need not allege or prove any cause for such change of judge and need not be verified.
<b>Rule 51.12</b>	Failure of the clerk to transmit the paper or transcript, or the loss of the same, shall not operate as a discontinuance of the civil action but copies may be furnished and filed.
<b>Rule 51.10</b>	A court which has granted a change of venue shall have the power to annul the order, with consent of the parties, at any time before the papers of transcript are filed in the court to which the venue was changed.
<b>Rule 52.02(c)</b>	[Appointment of Next Friend for a Minor] Such appointment shall be made on the petition in writing of such minor if of the age of fourteen years and the written consent of the person proposed to be next friend. If such minor be under the age of fourteen years, the appointment of a next friend may be made upon the written application of a relative or friend of the minor . . .
<b>Rule 52.02(d)</b>	The petition for the appointment of a next friend, the written consent of the person proposed to be next friend, and the order of appointment, shall be filed in the office of the clerk of the court . . .
<b>Rule 52.02(f)</b>	Appointment of Guardian Ad Litem. The appointment of a guardian ad litem shall be made by the court in which the civil action is pending upon the written request of the minor defendant, if of the age of fourteen years or more, or, if such minor be

	under said age, on the written request of a relative or friend of the minor, and on the written request of a relative or friend of the minor, and on the written consent of any competent person. . .
<b>Rule 54.01</b>	Clerk To Issue Process-Separate or Additional Summons. Upon the filing of a pleading requiring service of process, the clerk shall forthwith issue the required summons....If requested in writing by the party whose pleading requires service of process, the clerk shall deliver the summons or other process to such party....Upon written request of such party, separate or additional summons and other process shall be issued.
<b>Rule 54.13(c)</b>	Acknowledgment of Service. When a defendant shall acknowledge in writing, endorsed on the process, signed by the defendant's own proper signature, the service of such process, and waive the necessity of service thereof by an officer, such acknowledgment shall be deemed as valid as service in the manner provided by law.
<b>Rule 54.20(a)(1)</b>	Officer's Returns. Every officer to whom summons or other process shall be delivered for service within the state shall make return thereof in writing...
<b>Rule 55.03(a)</b>	Signature Required. Every pleading, motion, and other paper shall be signed by at least one attorney of record in the attorney's individual name or, if the party is not represented by an attorney, shall be signed by the party. Each paper shall state the signer's address, Missouri bar number, and telephone number, if any. Except when otherwise specifically provided by rule or statute, papers need not be verified or accompanied by affidavit. An unsigned paper shall be stricken unless omission of the signature is corrected promptly after being called to the attention of the attorney or party.
<b>Rule 55.26(a)</b>	Written Motion-When Required. An application to the court for an order shall be by motion which, unless made during a hearing or trial, shall be made in writing, shall state with particularity the grounds therefore, and shall set forth the relief or order sought. The requirement of writing is fulfilled if the motion is stated in a written notice of the hearing of the motion.
<b>Rule 55.26(b)</b>	The provisions applicable to captions, signing and other matters of form of pleading apply to all motions and other papers provided for by these Rules.
<b>Rule 55.33(a)</b>	pleading may be amended only by leave of court or by written consent of the adverse party...
<b>Rule 56.01(a)</b>	Discovery Methods. Parties may obtain discovery by one or more of the following methods: depositions upon oral examination or written questions; written interrogatories;...
<b>Rule 56.01(e)</b>	Supplementation of Responses. A party who has responded to written interrogatories with a response that was complete when made is under no duty to supplement the response...
<b>Rule 56.01(f)</b>	Stipulations Regarding Discovery Procedure. Unless the court orders otherwise, the parties may by written stipulation (1) provide that depositions may be taken before any person at any time or place...
<b>Rule 57.01(a)</b>	Any party may serve upon any other party written interrogatories to be answered by the party served or,...Each interrogatory shall be answered separately and fully in writing...
<b>Rule 57.02(a)(3)</b>	Depositions Before Action. If the court is satisfied that the perpetuation of the testimony may prevent a failure or delay of justice, it shall make an order designating or describing the persons whose depositions may be taken and specifying the subject matter of the examination and whether the depositions shall be taken upon oral examination or written questions...

<b>Rule 57.03(b)(1)</b>	Notice of Examination. A party desiring to take the deposition of any person upon oral examination shall give not less than seven days notice in writing to every other party to the action...
<b>Rule 57.03(c)(2)</b>	Where the deposition has been recorded only by video tape and if the witness and parties do not waive signature, a written transcription of the audio shall be prepared to be submitted...
<b>Rule 57.04(a)</b>	Deposition upon Written Questions. After commencement of the action, any party may take the testimony of any person, including a party, by deposition upon written questions....A deposition upon written questions may be taken of a public or private corporation...
<b>Rule 57.07(d)(3)</b>	Effect of Errors and Irregularities in Depositions. Objections as to the form of written questions submitted under Rule 57.04 are waived unless served in writing upon the party propounding them...
<b>Rule 58.01(b)</b>	Production of Documents. The party upon whom the request is served shall serve a written response within thirty days....At the time of such service, the responding party shall serve a copy of such written responses upon each additional party...
<b>Rule 59.01(a)</b>	Request for Admissions. After commencement of an action a party may serve upon any other party a written request for the admission...
<b>Rule 60.01(b)(1)</b>	Examination of Mental or Physical Condition. If requested by the party against whom an order is made under Rule 60.01(a) or the person who is the subject of the order, the party obtaining the order shall deliver to the requesting person or party a copy of a detailed written report of the examinor or evaluator...
<b>Rule 63.01</b>	Trial Settings. In all single-judge circuits, orders setting civil actions for trial shall be made:.... (2) Upon the court's own motion on any regularly scheduled law day, of five days' written notice....has been given.... (4) Upon request of any party, when the issues have been joined and a reasonable time has elapsed for discovery, if five days' written notice...has been given by the requesting party to all other parties.
<b>Rule 65.03</b>	Application for continuance, how made. An application for continuance shall be made by a written motion, accompanied by the affidavit of the applicant...
<b>Rule 66.01(d)</b>	Consolidation of Civil Actions – Injury to Spouse. ....If any party against whom a claim is asserted gives written notice of the pendency of the action and of the necessity to join therein to the spouse...
<b>Rule 69.01(b)</b>	Jury Trial – How Waived. Parties shall be deemed to have waived trial by jury:.... (2) by filing with the clerk written consent in person or by attorney:...
<b>Rule 70.02(a)</b>	Request for Instructions. Any party may, and a party with the burden of proof on an issue shall, submit written requests for instructions on the law applicable to the issues....All instructions shall be submitted in writing and shall be given or refused by the court according to the law and the evidence in the case. Each instruction shall be submitted with an original and one copy for the court and one copy for each party.
<b>Rule 74.01(a)</b>	Judgment – Included Matters. ....A judgment is entered when a writing signed by the judge and denominated "judgment" is filed. The judgment may be a separate document or included on the docket sheet of the case.
<b>Rule 74.03</b>	Notice of Entry of Orders and Judgments. If such notice is not given, the order or judgment shall be set aside for good cause shown upon written motion...
<b>Rule 74.12(a)</b>	Assignment of Judgment. An assignment of a judgment may be made by a writing executed and acknowledged by the assignor.
<b>Rule 76.06(f)</b>	Levy How Made. A levy upon a security or any share or other interest evidence

	thereby shall be made by actual seizure...but if the security is in the possession of the issuer a levy may be made by serving a written notice....
<b>Rule 76.17</b>	Notice to Person Whose Land is Levied Upon. Service may be shown by acknowledgement of receipt, written return of service....written certificate of counsel making such mailing.
<b>Rule 77.04</b>	Offer of Judgment – Recovery of Costs. If within ten days after the service of the offer the adverse party serves written notice that the offer is accepted, either party may then file the offer and notice of acceptance together with proof of service....
<b>Rule 81.12(a)</b>	Contents of Record on Appeal. The legal file shall be so labeled with a cover page and contain clearly reproduced exact copies of the pleadings and other portions of the trial record previously reduced to written form.  The transcript shall contain the portions of the proceedings and evidence not previously reduced to written form.
<b>Rule 81.12(c)</b>	Duty of Appellant to Order the Transcript and Compile the Record on Appeal. Within thirty days after the notice of appeal is filed, appellant shall order the transcript, in writing, from the reporter or from the clerk of the trial court ....The written order shall designate the portions of the proceedings and evidence....A copy of the written order shall be filed with the appellate court....  Appellant shall also prepare the legal file, including the index thereto, and serve a copy upon each respondent. Unless the parties file a written agreement regarding the legal file....
<b>Rule 81.15(c)</b>	Certification of Record on Appeal. If the parties agree in writing filed with the appellate court that either the legal file or the transcript is, or that both the legal file and the transcript are, true and accurate, certification shall not be required of that part of the record on appeal on which such agreement is reached...
<b>Rule 81.18(b)</b>	Typewritten transcripts shall conform to the provision of Rule 81.18(a) except that they shall be securely bound on the left side with either fasteners that extend a full one inch beyond the depth of the volume or spiral binding and shall have a left margin of not less than one and one-fourth inches. A volume of transcript shall not exceed two hundred pages.
<b>Rule 81.18(c)</b>	Legal files shall conform to the provision of Rule 81.18(a) except that they shall be securely bound on the top or left side. If fasteners are used to bind the legal file, they shall extend a full one-inch beyond the depth of the volume. A volume of the legal file shall not exceed two hundred pages.
<b>Rule 83.04(e)</b>	When a memorandum decision or written order has been issued by the court of appeals as provided by Rule 30.24 or Rule 84.16, the application filed in this Court shall be accompanied by one copy of each brief filed in the court of appeals.
<b>Rule 84.01(b)</b>	Pleadings and other papers filed in an appellate court may be filed by facsimile transmission if authorized by local rule. If facsimile transmission is authorized by local rule, a pleading or other paper so filed shall have the same effect as an original filing. A facsimile signature shall have the same effect as an original signature.
<b>Rule 84.07(a)</b>	Service of Motions, Briefs, and Records on Appeal. Service of a motion, suggestions...shall be made by mail or in person, to be received within the times set out herein. Evidence of service, which shall be filed with the motion, suggestions, brief...may be shown by acknowledgment of receipt or by affidavit or by written certificate of counsel making such service.
<b>Rule 84.16(a)</b>	Written Decision Required. In each case determined by this Court or by any district

	of the Court of Appeals, the judicial decision shall be reduced to writing and filed in the cause. If the decision is not unanimous, the writing shall show which judges concurred therein or dissented therefrom.
<b>Rule 84.16(b)</b>	Memorandum Decisions and Written Orders. When the appellate court determines that any one or more of the following circumstances exists...the judgment may be affirmed by memorandum decision or by written order.... A written order may state only the action of the court
<b>Rule 84.16(d)</b>	The clerk of each appellate court shall furnish promptly free of charge a copy of the decision, written order or opinion of the court to counsel for each party on appeal.
<b>Rule 84.25(b)</b>	Application to Transfer. In addition to the original, seven clearly legible copies of an application for transfer or suggestions in opposition to the application as provided for in Rule 83 shall be filed. When a memorandum decision or written order has been issued...
<b>Rule 85.07</b>	Service of Writ of Attachment. When a writ of attachment is issued the writ of attachment, together with a written notice, shall be served on the owner of the property and a written notice, with a copy of the writ of attachment, shall be served....The written notice shall advise...
<b>Rule 86.08</b>	Condemnation Proceedings. A party may file written exceptions to the report of the commissioners...
<b>Rule 88.06(a)</b>	Duties of the Mediator. The mediator in writing shall....
<b>Rule 88.06(c)</b>	The mediator shall make a written summary of any understanding reached by the parties. A copy of the summary shall be provided to the parties and their attorneys, if any. The mediator shall advise each party in writing to obtain legal assistance....Any understanding reached by the parties as a result of mediation shall not be binding upon the parties until it is reduced to writing, signed by the parties and their attorneys, ....If any party is not represented, the mediator shall provide to the court the written summary of any understanding reached by the parties.
<b>Rule 90.13(a)</b>	Garnishment. Prior to the issuance of the summons of garnishment, the garnishor shall file written interrogatories...

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**APPENDIX C: WRITTEN REQUIREMENTS, MISSOURI RULES OF CRIMINAL PROCEDURE**

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Because Missouri Supreme Court Rules of Criminal Procedure sometimes require “a writing,” “writings,” “written” “papers, etc.”, and in other instances do not, the Team recommends a comprehensive review of all Court rules to:

1. determine whether an electronic transmission will, in all instances, satisfy requirements for “written” documents, etc.
2. determine whether a traditional format, i.e., paper, should be required in any filing.

The table below provides a listing of the Missouri Supreme Court Rules of Criminal Procedure that refer to some form of written requirement. Though comprehensive, the listing may not identify every reference to requirements applicable to a paper-based filing system. The list is intended to demonstrate the varied instances in which the Court has required a written document and to provide a foundation for the above-described review.

<b>Rule 19.09</b>	Pleadings and Papers-Size-Recycled Paper. All pleadings and other papers, except exhibits offered for filing in any court and all forms used in any, including opinions, shall be on paper of a size not larger than 8-1/2 x 11 inches. An exhibit may be on paper larger than size 8-1/2 x 11 inches. Briefs shall be prepared as provided in Rule 81.18 and Rule 84.06. The use of recycled paper is acceptable and encouraged.
<b>Rule 20(d)</b>	Misdemeanors or Felonies. Motions-Notice Required-Affidavits. A written motion, other than one which may be heard ex parte, and notice of the hearing thereof shall be served not later than five days...When a motion is supported by an affidavit, the affidavit shall be served with the motion...
<b>Rule 20.03</b>	Misdemeanors or Felonies-Process-Return. Every officer to whom any writ of process or order shall be directed and delivered for service...shall make return thereof in writing showing the time, place, and manner of service thereof, and shall sign such return and file the same in the clerk's office.
<b>Rule 20.04(a)</b>	Service-When Required. Every written motion, other than one which may be heard ex parte, and every written notice, application, and similar paper which is required to be served shall be served upon each of the parties affected thereby.
<b>Rule 20.04(d)</b>	Service-How Shown. Service may be shown by acknowledgment of receipt or by affidavit or by written certificate of counsel making such service.
<b>Rule 21.04</b>	Misdemeanors-Complaint-Contents. A complaint must be in writing... (e) be verified by oath or affirmation of the complainant.
<b>Rule 21.06</b>	Misdemeanors-Summons-Contents. The summons shall: (a) be in writing...
<b>Rule 21.07(a)</b>	Misdemeanors-Warrant of Arrest-Contents. The warrant of arrest must be in writing and issued in the name of the state of Missouri.
<b>Rule 22.04(a)</b>	Felonies-Warrant of Arrest. The warrant of arrest must be in writing....
<b>Rule 22.07(c)</b>	Felonies-Initial Proceedings Before Judge. After concluding the proceedings the judge shall within five days transmit to the court having jurisdiction of the offense all papers in the proceeding...
<b>Rule 22.08</b>	Felonies-Homicide. In all cases of homicide, a verbatim record of the testimony at the preliminary examination shall be made. It shall be transcribed upon the written request of the state or defendant.

<b>Rule 23.01(a)</b>	Misdemeanors or Felonies-Indictment or Information-Form Of. The indictment or information shall be in writing signed by the prosecuting attorney, and filed in the court having jurisdiction of the offense. The indictment shall also be signed by the foreman of the grand jury.
<b>Rule 23.09</b>	Misdemeanors or Felonies-Indictment or Information-Unavailability of Original. If the original indictment or information is unavailable for any reason, a copy certified by the clerk of the court or by the prosecuting attorney, may be substituted.
<b>Rule 24.036(b)</b>	Misdemeanors or Felonies-Joint Defendants. A defendant shall be ordered to be tried separately only if the defendant files a written motion requesting a separate trial...
<b>Rule 24.07(a)</b>	Misdemeanors or Felonies-Severance of Offenses. An offense shall be ordered to be tried separately only if: (a) A party files a written motion requesting a separate trial...
<b>Rule 24.09</b>	Misdemeanors or Felonies-Application for Continuance. An application for a continuance shall be made by a written motion accompanied by the affidavit of the applicant...
<b>Rule 24.12</b>	Misdemeanors or Felonies-Preliminary Conference. No admission made by the defendant or his attorney at a conference shall be used against the defendant unless the admissions are reduced to writing and signed by the defendant and his attorney.
<b>Rule 25.03(A)</b>	Misdemeanors or Felonies-Disclosure by state to defendant without court order. Except as otherwise provided in these Rules as to protective orders, the state shall, upon written request of defendant's counsel, disclose to defendant's counsel...
<b>Rule 25.04(A)</b>	Misdemeanors or Felonies-Disclosure by State to Defendant by Court Order. The defense may make a written motion in the court having jurisdiction to try said case requesting the state to disclose material ...
<b>Rule 25.05(A)</b>	Misdemeanors or Felonies-Disclosure by Defendant to State Without Court Order. Except as otherwise provided in these Rules as to protective orders, and subject to constitutional limitations, on written request by the state, the defendant shall disclose to counsel for the state...
<b>Rule 25.06(A)</b>	Misdemeanors or Felonies-Disclosure by Defendant to State by Court Order. Subject to constitutional limitations the state may make a written motion in the court having jurisdiction to try the case requesting the defendant to disclose material...
<b>Rule 25.12</b>	Misdemeanors or Felonies- Deposition by Defendant. A defendant in any criminal case pending in any court may obtain the deposition of any person on oral examination or written questions.
<b>Rule 26.02(e)</b>	Return. Every officer to whom a subpoena is delivered for service shall make return thereof in writing as the time, place, and manner of service of such subpoena and shall sign such return.
<b>Rule 27.03</b>	Misdemeanors-Order of Trial. In the trial by jury of a misdemeanor case before a circuit judge or an associate circuit judge the court shall instruct the jury in writing, upon all question of law...
<b>Rule 27.05(b)</b>	Misdemeanors or Felonies-Failure of Defendant or Wife To Testify. If the defendant does not testify, and the defendant so requests, but not otherwise, the court shall instruct the jury in writing as follows:....
<b>Rule 28.02(a)</b>	Use of Instructions and Verdict Forms. In every trial for a criminal offense the court shall instruct the jury in writing...
<b>Rule 28.02(b)</b>	Instructions and verdict forms that a party requests shall be submitted in writing with an original and one copy for the court and copy for each party.
<b>Rule 28.02(e)</b>	All written requests for instructions and verdict forms that are refused shall be so marked by the court....

<b>Rule 29.01(a)</b>	Misdemeanors or Felonies-Verdict. The verdict shall be unanimous and be in writing.
<b>Rule 29.11(f)</b>	Misdemeanors or Felonies-After-Trial Motions. The opposing party has ten days after such service within which to serve opposing affidavits, which period may be extended for an additional period not exceeding twenty days....or by the parties by written stipulation.
<b>Rule 30.04(a)</b>	Contents of Record on Appeal. The legal file shall be so labeled with a cover page and contain clearly reproduced exact copies of the indictment or information and other portions of the trial record previously reduced to written form....  The transcript shall contain the portions of the proceedings and evidence not previously reduced to written form....  The parties may agree in writing upon an abbreviated or partial transcript...
<b>Rule 30.04(c)</b>	Duty of Appellant to Order the Transcript and Compile the Legal File. Within thirty days after the notice of appeal is filed, the appellant shall order the transcript from the reporter. . . .The written order shall designate the portions of the proceedings and evidence not previously reduced to written form... A copy of the written order shall be filed with the appellate court...
<b>Rule 30.04(g)</b>	Certification of the Record on Appeal. The transcript shall be certified by the court reporter as a true and accurate reproduction....The legal file shall be certified by the clerk of the trial court to consist of true copies of portions of the trial record, proceedings, and evidence previously reduced to writing....If the parties agree in writing...
<b>Rule 30.15(b)</b>	Stay of Execution. Imprisonment. A sentence of imprisonment shall be stayed an appeal is taken...Such request shall be in writing...
<b>Rule 30.25(a)</b>	Written Opinions Required. Except as in subsection (b) of this Rule, in each case determined by this Court...the appellate judicial opinion shall be in writing...
<b>Rule 30.25(b)</b>	Summary Orders. In a case in which decision is unanimous and all judges believe that no jurisprudential purpose would be served by a written opinion, disposition may be made by a written summary order. By local court rule this Court or any district of the Court of Appeals may require a brief written statement be attached to any such order.
<b>Rule 30.25(d)</b>	Opinion and Summary Order Furnished Free of Charge. The clerk of each appellate court shall promptly furnish free of charge a copy of the summary order of the court, and any written statement appended thereto, to counsel for each party on appeal.
<b>Rule 32.04(a)</b>	Misdemeanors or Felonies-Change of Venue From Inhabitants for Cause. Upon written application of the defendant, a change of venue may be ordered in any criminal proceeding triable by jury....
<b>Rule 32.06(a)</b>	Preliminary Examination. Change of Judge. A change of judge shall be ordered before a preliminary examination upon the filing of a written application...The application need not be verified and may be signed by any party or any attorney for any party.
<b>Rule 32.07(a)</b>	Change of Judge – Procedure. A change of judge shall be ordered in any criminal proceeding upon the timely filing of a written application therefor by any party. The application need not be verified and may be signed by any party or an attorney for the party.
<b>Rule 32.13</b>	Order of Change of Venue May be Annulled. A court which has granted a change of venue may annul the order, with consent of the parties, any time before the papers or transcript are filed...

<b>Rule 33.02(a)</b>	Misdemeanors or Felonies-Warrant for Arrest-Officials Authorized to Set Conditions for Release. The court or clerk thereof issuing a warrant for the arrest of any person shall set the condition for release of the accused which shall be one of the following: (a) The written promise of the accused to appear.
<b>Rule 33.09(c)</b>	Failure of Court to Set conditions or setting of Excessive Conditions for Release. the defendant shall file with the clerk a signed and acknowledged written instrument in which he shall
<b>Rule 33.16</b>	Notice of Change of Address. Any defendant who has been released pending proceedings and any surety for such defendant, shall give written notice to the clerk of the court in which the case is pending of any change of address.

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**APPENDIX D: THE MISSOURI BAR ELECTRONIC FILING SURVEY**

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# THE MISSOURI BAR

THE MISSOURI BAR CENTER  
326 MONROE ST.  
POST OFFICE BOX 119  
JEFFERSON CITY, MISSOURI 65102  
573/635-4128  
FAX: 573/635-2811  
E-MAIL: MOBAR@MOBAR.ORG  
WEB SITE: HTTP://WWW.MOBAR.ORG

OFFICE OF THE PRESIDENT  
**MARVIN E. "BUNKY" WRIGHT**  
609 EAST WALNUT STREET  
COLUMBIA, MISSOURI 65201-4490  
573/449-2613  
FAX: 573/875-8154

December 10, 1997

Dear Missouri Bar Member,

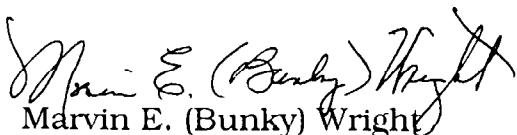
I am pleased to report that the Missouri Court Automation Committee has assembled a research and design team to prepare a feasibility study on electronic filing in all Missouri courts. It is anticipated that the system would allow lawyers to electronically file court documents from remote locations and, ultimately, to obtain case information 24 hours a day from an electronic court registry.

The Supreme Court of Missouri will be consulting lawyers at every stage of Missouri's project. To that end, I attach a short questionnaire that is being sent to 3,500 law firms to determine lawyers' technical capabilities and to elicit initial views about electronic filing. The Supreme Court and the Missouri Court Automation Committee will consider responses from the sample as an essential component of the feasibility study. I anticipate the distribution of a more comprehensive survey to all Missouri lawyers pending the Committee's review and action on the initial feasibility report.

I encourage you to respond to the questionnaire by December 19. Please submit your answers to The Missouri Bar by fax or mail as indicated on the questionnaire. If you would care to write additional comments or suggestions (anonymously or signed) about electronic filing, please feel free to include those along with the survey.

Thank you for your participation in this important project.

Sincerely,



Marvin E. (Bunky) Wright  
President

# Electronic Filing Questionnaire

1. Practice Location: \_\_\_\_\_ County, Missouri

2. Major Practice Area(s) (Please use the three-digit codes listed on the other side): \_\_\_\_\_

3. Number of lawyers in your firm/agency:

- |  |              |
|--|--------------|
| <input type="checkbox"/> solo practitioner | _____ 26-50  |
| <input type="checkbox"/> 2-5               | _____ 51-100 |
| <input type="checkbox"/> 6-10              | _____ 100+   |
| <input type="checkbox"/> 11-25             |              |

4. Please check the items below that most accurately describe your present computer system:

- |   |                                   |
|---|-----------------------------------|
| <input type="checkbox"/> DOS Operating System         | _____ Windows NT Operating System |
| <input type="checkbox"/> Windows 3.x Operating System | _____ Macintosh                   |
| <input type="checkbox"/> Windows '95 Operating System | _____ No computer                 |

5. Are you part of an office computer network?

yes     no

6a. Please check all the activities that you use a computer for in your law firm:

- |  |                         |
|--|-------------------------|
| <input type="checkbox"/> drafting legal documents              | _____ e-mail            |
| <input type="checkbox"/> editing legal documents               | _____ Internet services |
| <input type="checkbox"/> legal research                        | _____ Other _____       |
| <input type="checkbox"/> organizing major litigation documents |                         |

6b. Please check all the activities that secretaries or paralegals use computers for in your office:

- |  |                         |
|--|-------------------------|
| <input type="checkbox"/> drafting legal documents              | _____ e-mail            |
| <input type="checkbox"/> editing legal documents               | _____ Internet services |
| <input type="checkbox"/> legal research                        | _____ Other _____       |
| <input type="checkbox"/> organizing major litigation documents |                         |

7. Please check the Internet services below that you consult in your law practice:

- |  |  |
|--|--|
| <input type="checkbox"/> New stories/Current events/Investment info. | _____ Missouri Court of Appeals opinions |
| <input type="checkbox"/> Legal research tools                        | _____ Missouri Circuit Court information |
| <input type="checkbox"/> Missouri Supreme Court opinions & dockets   | _____ The Missouri Bar information       |

8. Please check all methods that you currently use to file documents in Missouri courts:

- |   |                         |
|---|-------------------------|
| <input type="checkbox"/> Delivery by attorney | _____ Courier/Paralegal |
| <input type="checkbox"/> U.S. Mail            | _____ Facsimile         |

9. Have you filed a document (including correspondence) in a Missouri court by fax filing?

yes     no

10. Would you file a court document using an electronic filing system, if state courts could accept documents from remote locations and acknowledge receipt?

yes     no

If yes, please check below the types of documents that you would electronically file in Missouri courts:

- |   |
|---|
| <input type="checkbox"/> original pleadings (Complaint, Petition, Answer, etc.) |
| <input type="checkbox"/> motions  |
| <input type="checkbox"/> correspondence   |
| <input type="checkbox"/> exhibits   |

If no, please check below the items that might influence your decision not to electronically file a document in a Missouri court:

- |   |
|---|
| <input type="checkbox"/> Lack of technical capability at your firm/agency |
| <input type="checkbox"/> Lack of personal knowledge about computers       |
| <input type="checkbox"/> Distrust of electronic transmission              |

*Please return your questionnaire by December 19 via fax or mail to:  
The Missouri Bar, Attn: Survey, P.O. Box 119, Jefferson City, MO 65102-0119  
Fax (573) 635-2811*

100	Administrative & Regulatory Law	367	Energy Law	545	Legal Education & Bar Admissions
105	Admiralty & Maritime Law	360	Entertainment & Sports Law	551	Litigation – General Civil
140	Agricultural Law	365	Environmental Law	555	Litigation – Commercial
150	Antitrust Law	370	Family Law	556	Medical Malpractice
160	Appellate Practice	305	Finance & Securities	557	Mental Health Law
170	Aviation & Space Technology Law	380	Franchise Law	558	Mergers & Acquisitions
301	Banking & Savings	390	Gaming Law	560	Military Law
100	Bankruptcy/Insolvency/Reorganization	400	General Practice	565	Municipal Bond Practice
994	Bar Admissions	451	Government - Federal Level	570	Natural Resources Law
990	Bar Executive	456	Government - Urban & Local	320	Non-Profit
182	Biotechnology	Level		530	Product Liability Law
185	Childrens Law	459	Government - State Level	330	Professional Responsibility/Ethics
190	Civil Rights	500	Health & Hospital Law	600	Public Contract Law
195	Collection Law	501	Housing Law	605	Public Finance
198	Commercial Transactions	502	Human Rights Haw	610	Public Utility Law & Regulated Industries
200	Communications Law	505	Immigration Law	620	Real Estate Law
202	Computer Law	510	Insurance law	680	Science, Engineering & Technology Law
206	Constitutional Law	520	Intellectual Property Law	701	Taxation – Corporate & Business
210	Construction Law	530	International Law	702	Taxation – Personal
213	Consumer Law	534	Judge – Appellate	640	Tort & Personal Injury Law
303	Corporate Law	535	Judge – Federal Trial	650	Trade & Professional Associations
351	Criminal Law - Public Defense	536	Judge – State Trial	660	Transportation Law
352	Criminal Law – Private Defense	537	Judge – Special Court	670	Trust, Probate & Estate Planning
353	Criminal Law – Prosecution	538	Judge – Administrative Law	720	Worker's Compensation Law
340	Disability Law	539	Judges & Courts – Clerks	740	Zoning Law
165	Dispute Resolution (Arb./Med.)	991	Judicial Administration		
167	Divorce Law	540	Labor & Employment Law		
168	Educational Law	541	Labor & Employment Law –		
355	Elder law	Union			
357	Employee Benefits	932	Law Office Administration		

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**APPENDIX E: MULTI-MODAL ELECTRONIC FILING**

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## Multi-Modal Electronic Filing

